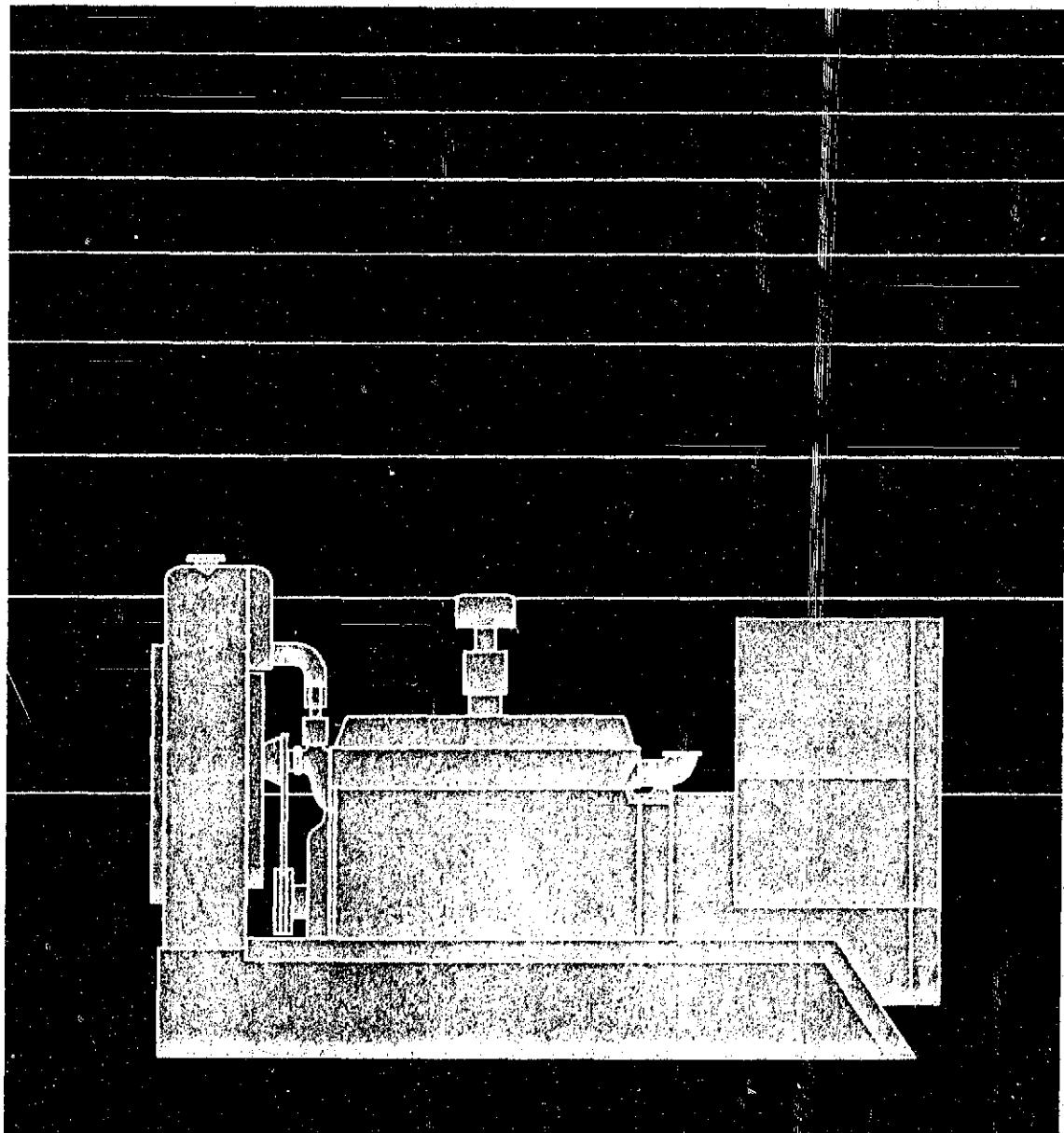




Onan

# Parts Catalog

## EK EM GENERATOR SET



Printed in U.S.A.

928-0220 (Spec A-C 30/35 kW EK 50/60 Hz) 9-93  
(Spec C-V 25/30 kW EK 50/60 Hz)

(Spec M-V 37.5 kW EM 50 Hz)  
(Spec C-V 45.0 kW EM 60 Hz)

Replaces Spec C-T 25/30 kW EK 50/60 Hz 12-91  
Spec A 30/35 kW EK 50/60 Hz  
Spec C-T EM



Power  
Generation

Redistribution or publication of this document  
by any means, is strictly prohibited.

**Supplement** 928-2002  
**Date:** 04-15-02  
**Insert with-**  
**Title:** EK/EM Parts Manual  
**Number (Date):** 928-0220 (09-93)

---

## PURPOSE

This supplement adds replacement part numbers for **30EK Spec D, 37.5EM Spec W and 45EM Spec W** generator sets.

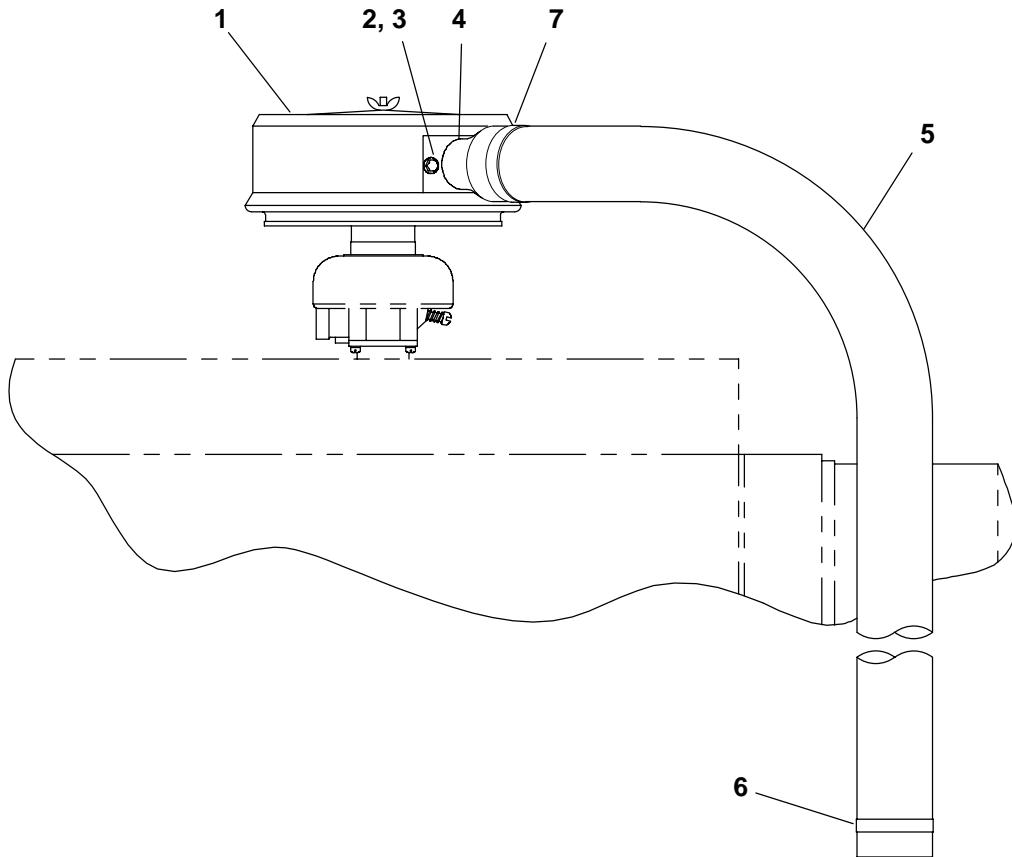
## SUPPLEMENT USE

The following pages have been updated to cover the latest Spec changes. Insert this supplement behind the front cover of your manual. Refer to the corresponding pages of your manual and write "IMPORTANT: REFER TO SUPPLEMENT". Certain Models may not incorporate all of the revised pages.

Cover	Shows New Specs
Page 1	Air Cleaner
Pages 4-7	Engine Accessory Parts
Pages 13-27	Fuel System, Gasoline Fuel System, Natural Gas Fuel System, LP Vapor Fuel System, LPG Liquid Dual Fuel System, Natural Gas/LPG Vapor Auto Conversion Dual Fuel System, Natural Gas/LP Liquid Auto Conversion Carburetor Assembly for Natural Gas/LPG Vapor Auto Conversion Carburetor Assembly for Natural Gas/LP Liquid Auto Conversion Gas Converter Assembly
Pages 10-11	Governor
Pages 34-35	Radiator
Pages 61-62	Muffler
Pages 63-65	Wiring Harness, Engine to Control
Page 49	Coolant Heater
Page 76	Control Heater
Page 48	Low Coolant Level Switch
New Page	Alarm Boards
New Page	Audible Alarm
New Page	Over/Under Voltage

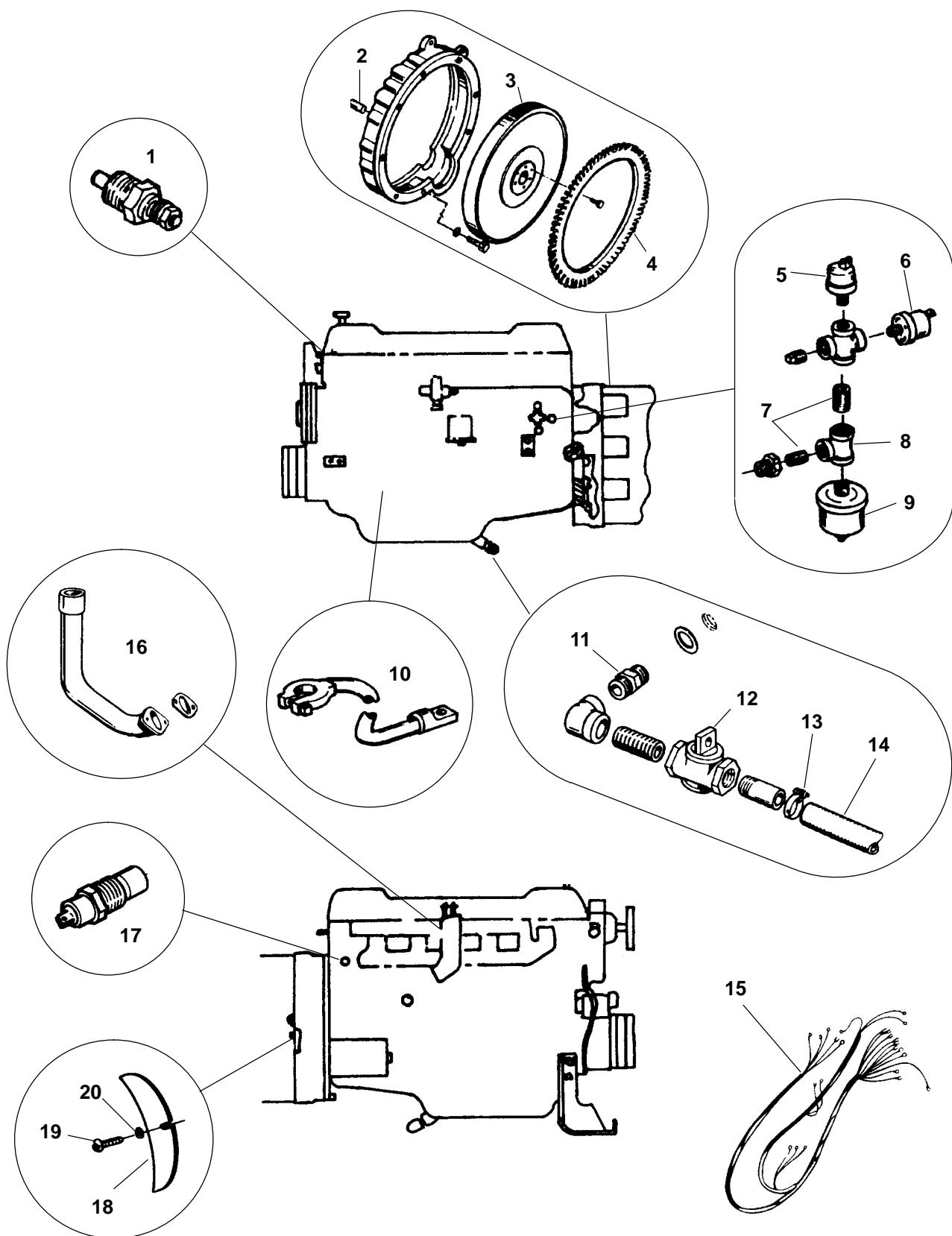
Please keep this supplement with Parts Catalog 928-0220.

## Air Cleaner



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-3058-02	1	Cleaner, Air	5	501-0596	1	Hose, Air
2	821-0008	2	Screw, Lock (1/4"-20)	6	503-1816	1	Clamp
3	870-0212	2	Nut, Lock (1/4"-20)	7	503-0354	1	Clamp, Hose
4	140-2664	1	Inlet, Air Cleaner				

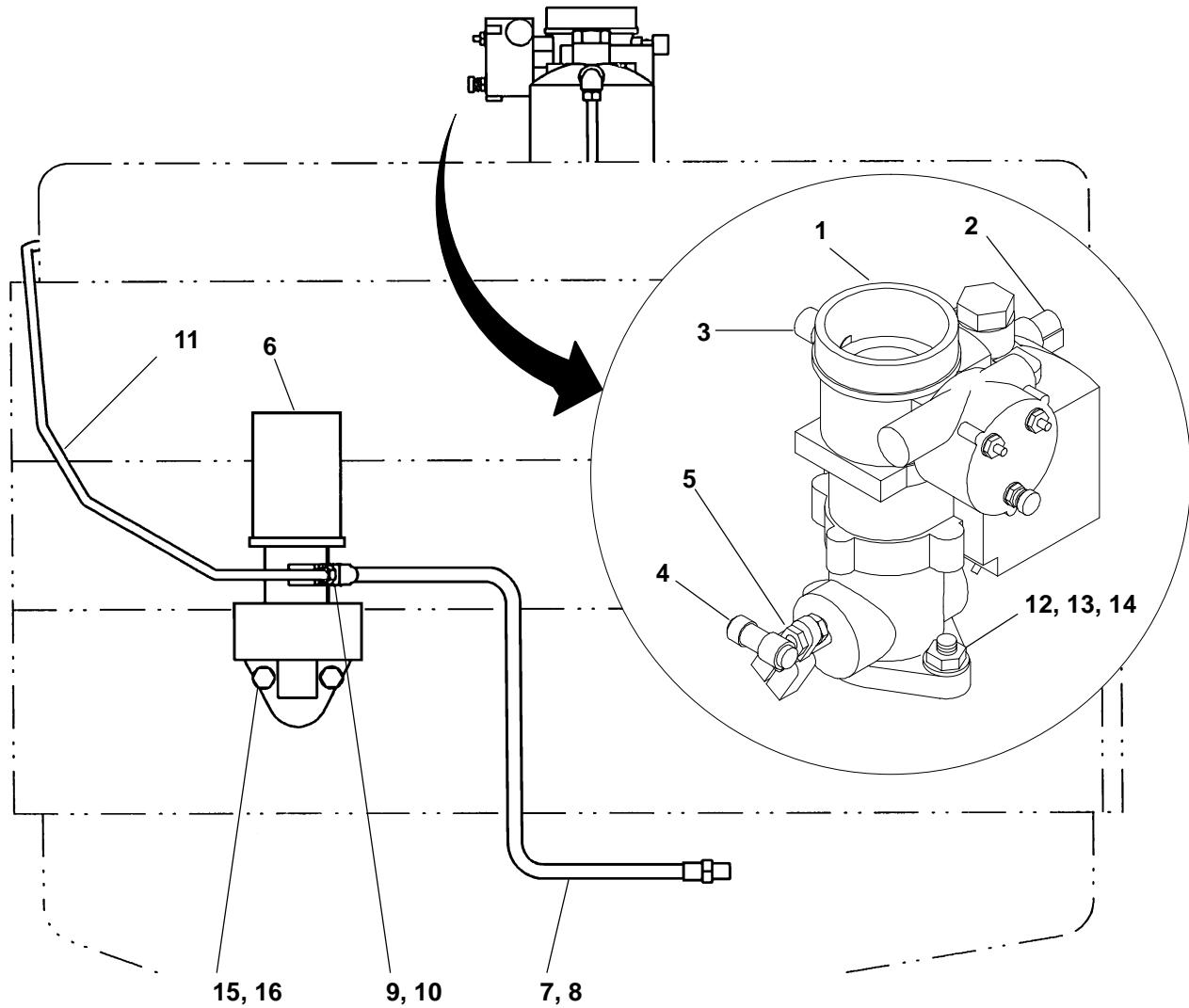
## Engine Accessory Parts



## Engine Accessory Parts

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	193-0318	1	Sender, Water Temperature (E2)	11	102-1463	1	Adapter, Pipe – Hex
	505-0060	1	Tee, Pipe	12	504-0176	1	Valve, Shut-off (3/8 NPT)
	505-0101	1	Nipple, Close (3/8")	13	503-0131	1	Clamp, Hose
	502-0943	1	Connector, Hose	14	503-1657	1	Hose, Rubber
2	516-0167	1	Pin, Alignment	15	166-0727	1	Harness, Wiring
3	104-0719	1	Flywheel (Includes Ring Gear)	16	155-1993	1	Tube, Exhaust
4	104-0723	1	Gear, Ring	800-0315		2	Screw, Hex Head Cap (7/16-14 x 1-3/4")
5	309-0561-01	1	Switch, Oil Pressure – Pre-Alarm (Normally Closed)	526-0356		2	Washer, Flat (7/16")
				850-0055		2	Washer, Lock (7/16")
6	309-0561-05	1	Switch, Oil Pressure (Shut-down)	17	309-0312	1	Switch, Thermostatic – Water S7 (Pre-Alarm)
7	505-0098	2	Nipple, Pipe – Close	18	191-0773	1	Cover, Starter
8	505-0059	1	Tee, Pipe (1/8 NPT)	19	812-0077	1	Screw, Machine Round Head (#8-32 x 3/8")
9	193-0448	1	Sender, Oil Pressure (E1)	20	850-0025	1	Washer, Lock Spring (#8)
10			Cable, Battery				
	416-1018	1	Positive (30-1/2")				
	416-0613	1	Negative (10")				

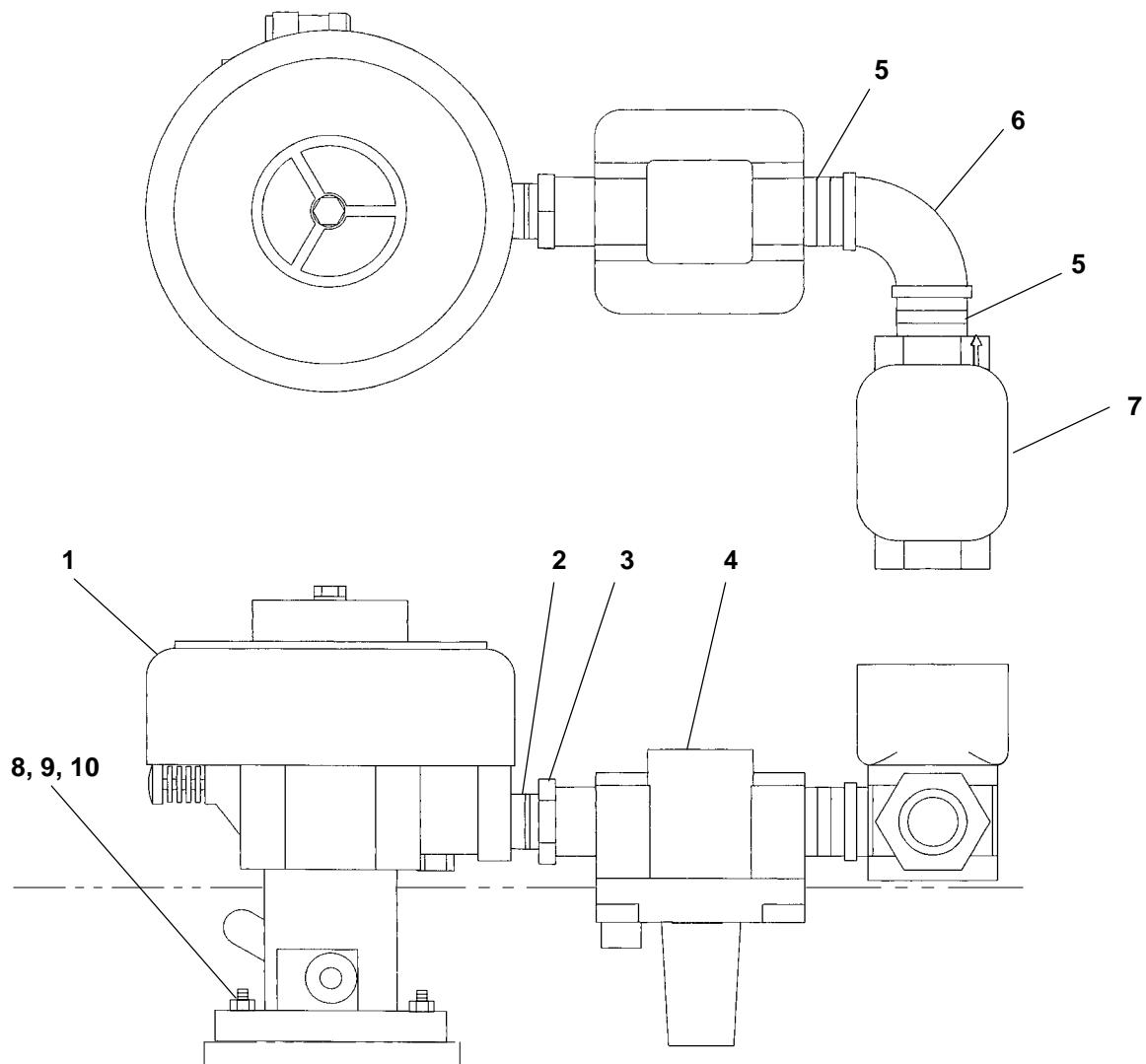
## Gasoline Fuel System



C162

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	146-0706	1	Carburetor	10	502-0002	1	Elbow, Invt. Male
2	502-0002	1	Elbow, Invt. Male	11	149-1052	1	Line, Fuel
3	141-0372	1	Knob, Choke Shaft	12	141-0971	1	Gasket, Carburetor
4	150-0638	1	Joint, Ball	13	854-0020	2	Washer, Lock (3/8")
5	868-0001	1	Nut, Hex Jam(1/4"-28)	14	867-0031	2	Nut, Hex (3/8"-24)
6	149-2304	1	Pump, Fuel	15	850-0045	2	Washer, Lock (5/16")
7	501-0134	1	Line, Flex Fuel	16	800-0030	2	Screw, Hex Head Cap (5/16-18 x 1-1/4")
8	503-0865	1	Clamp, Hose				
9	502-0354	1	Adapter, Fuel Line				

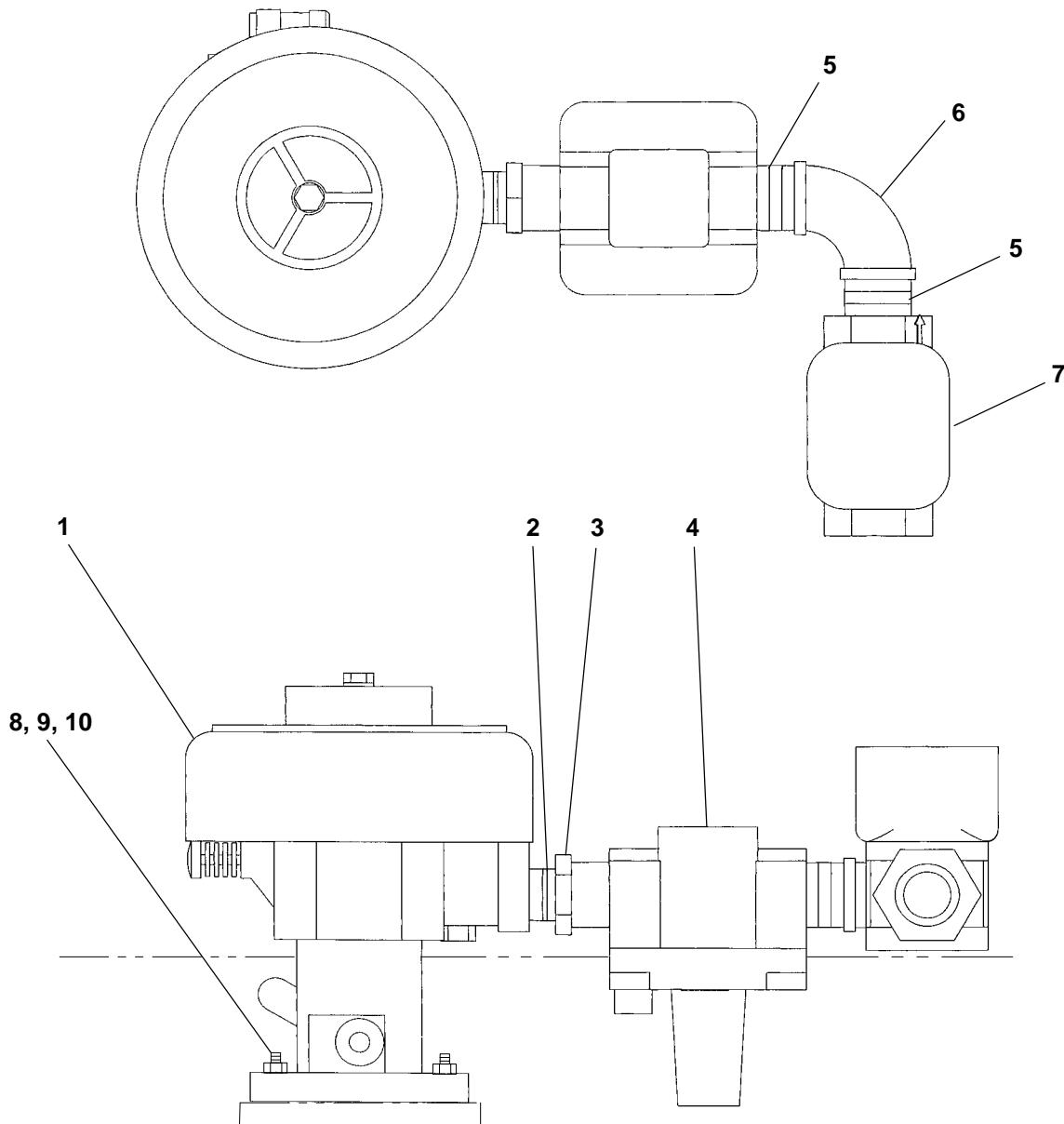
## Fuel System Natural Gas



C099

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1066 150-0638	1	Carburetor Joint, Ball	5	505-0102 6	2	Nipple, Pipe Elbow, Pipe
	850-0040	1	Washer, Lock (1/4")	7	307-0312-01	1	Valve, Solenoid (12V)
	868-0001	1	Nut, Hex Jam (1/4"-28)	8	141-0971	1	Gasket, Carburetor
2	505-0100	1	Nipple, Pipe	9	854-0020	2	Washer, ET Lock (3/8")
3	505-0021	1	Bushing, Reducer	10	867-0031	2	Nut, Hex (3/8"-24)
4	148-0597	1	Regulator, Natural Gas				

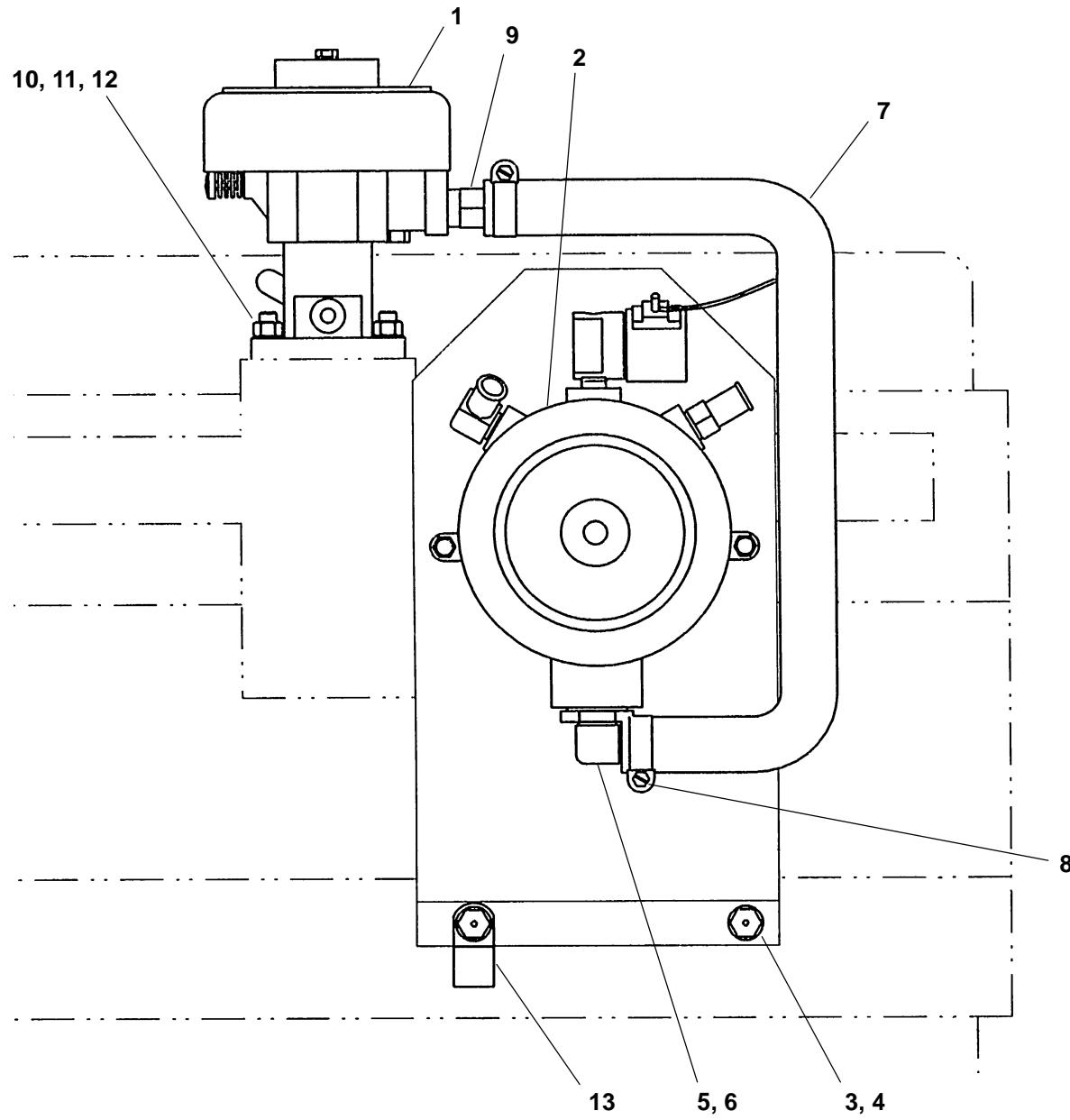
## Fuel System LP Vapor



C099

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1066		Carburetor	5	505-0102	2	Nipple, Pipe
	150-0638	1	Joint, Ball	6	505-0132	1	Elbow, Pipe
	850-0040	1	Washer, Lock (1/4")	7	307-0312-01	1	Valve, Solenoid (12V)
	868-0001	1	Nut, Hex Jam (1/4"-28)	8	141-0971	1	Gasket, Carburetor
2	505-0100	1	Nipple, Pipe	9	854-0020	2	Washer, ET Lock (3/8")
3	505-0021	1	Bushing, Reducer	10	867-0031	2	Nut, Hex (3/8"-24)
4	148-0637	1	Regulator, LP Vapor				

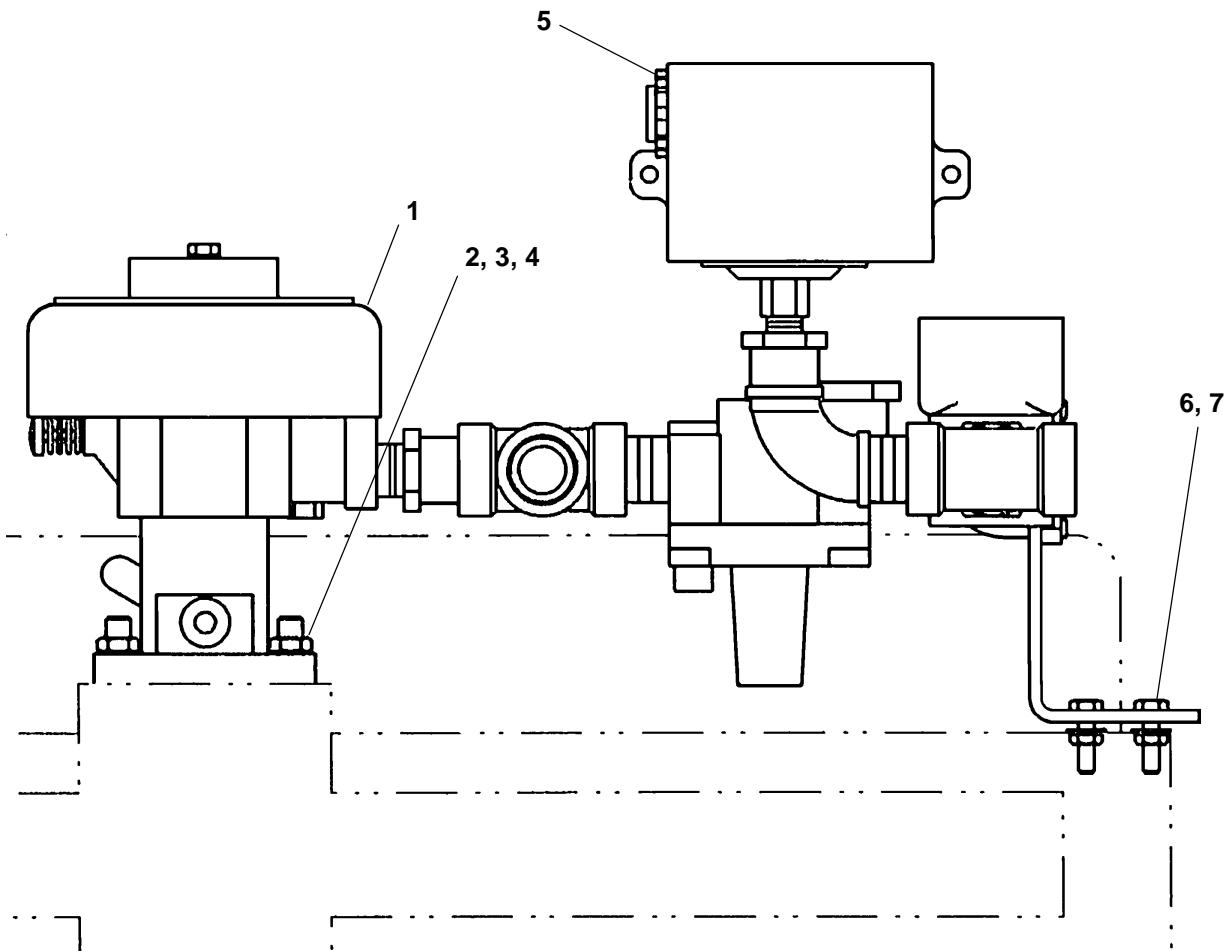
**Fuel System  
LPG Liquid**



C053

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1066 150-0638 850-0040 868-0001	1 1 1 1	Carburetor Joint, Ball Washer, Lock (1/4") Nut, Hex Jam (1/4"-28)	5 6 7 8 9 10 11 12 13	505-0022 502-1030 503-1565 503-0180 502-1031 141-0971 854-0020 867-0031 332-3438	1 1 1 2 1 1 2 2 1	Bushing, Reducer Connector, Hose Hose, LPG Clamp, Hose Connector, Hose Gasket, Carburetor Washer, ET Lock (3/8") Nut, Hex (3/8"-24) Clamp, Loop
2	179-2728	1	Converter Assembly (See Separate Page for Part Numbers)				
3	850-0055	2	Washer, Lock (7/16")				
4	800-0069	2	Screw, Hex Head Cap (7/16-14 x 3/4")				

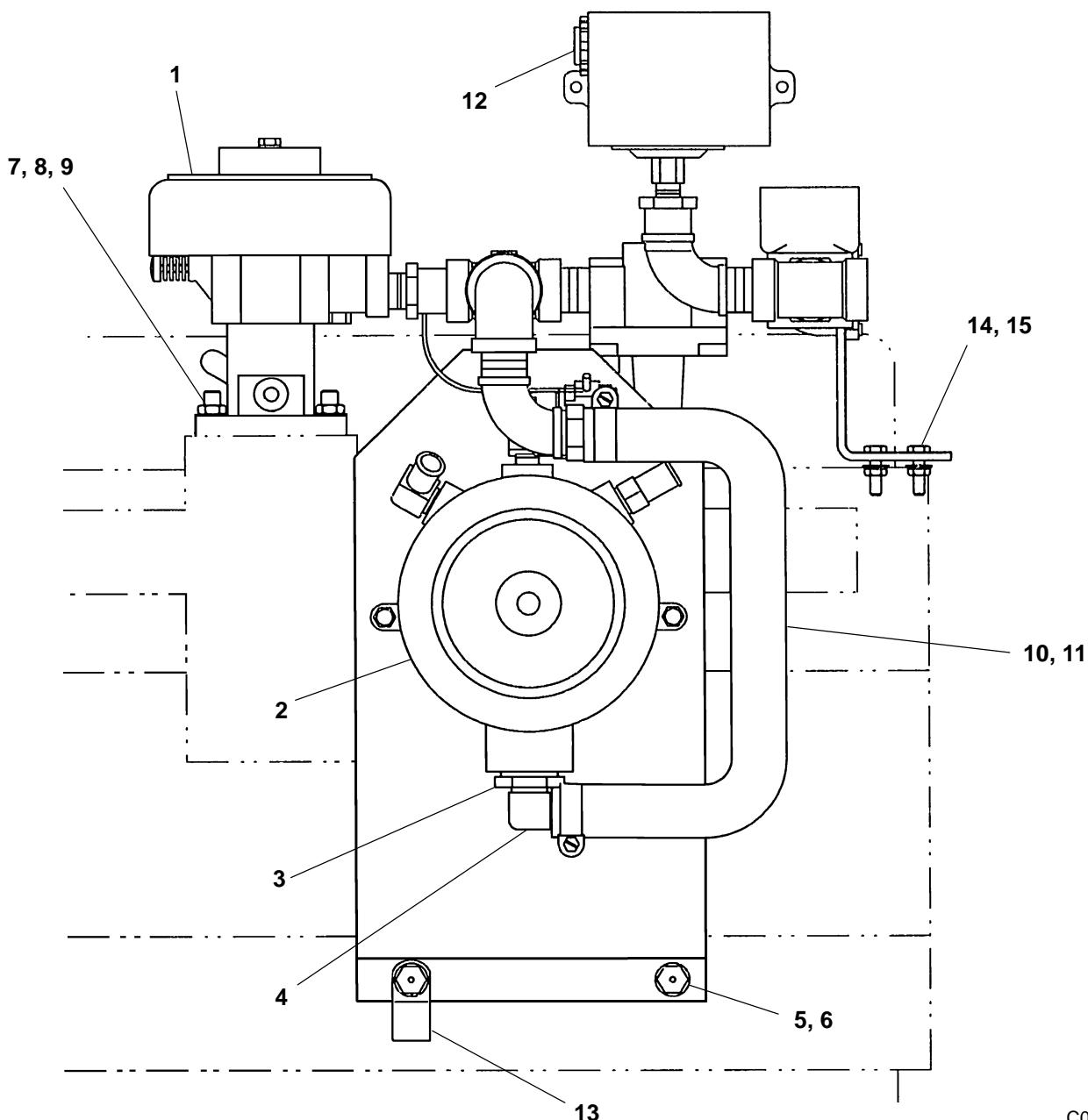
**Dual Fuel System**  
**Natural Gas/LPG Vapor Auto Conversion**



C065

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1		1	Carburetor (See Separate Page for Part Numbers)	5	331-0027	1	Connector, Romex
2	141-0971	1	Gasket, Carburetor	6	800-0007	2	Screw, Hex Head Cap (1/4-20 x 1")
3	854-0020	2	Washer, ET Lock (3/8")	7	870-0212	2	Nut, Lock Flange (1/4"-20)
4	867-0031	2	Nut, Hex (3/8"-24)				

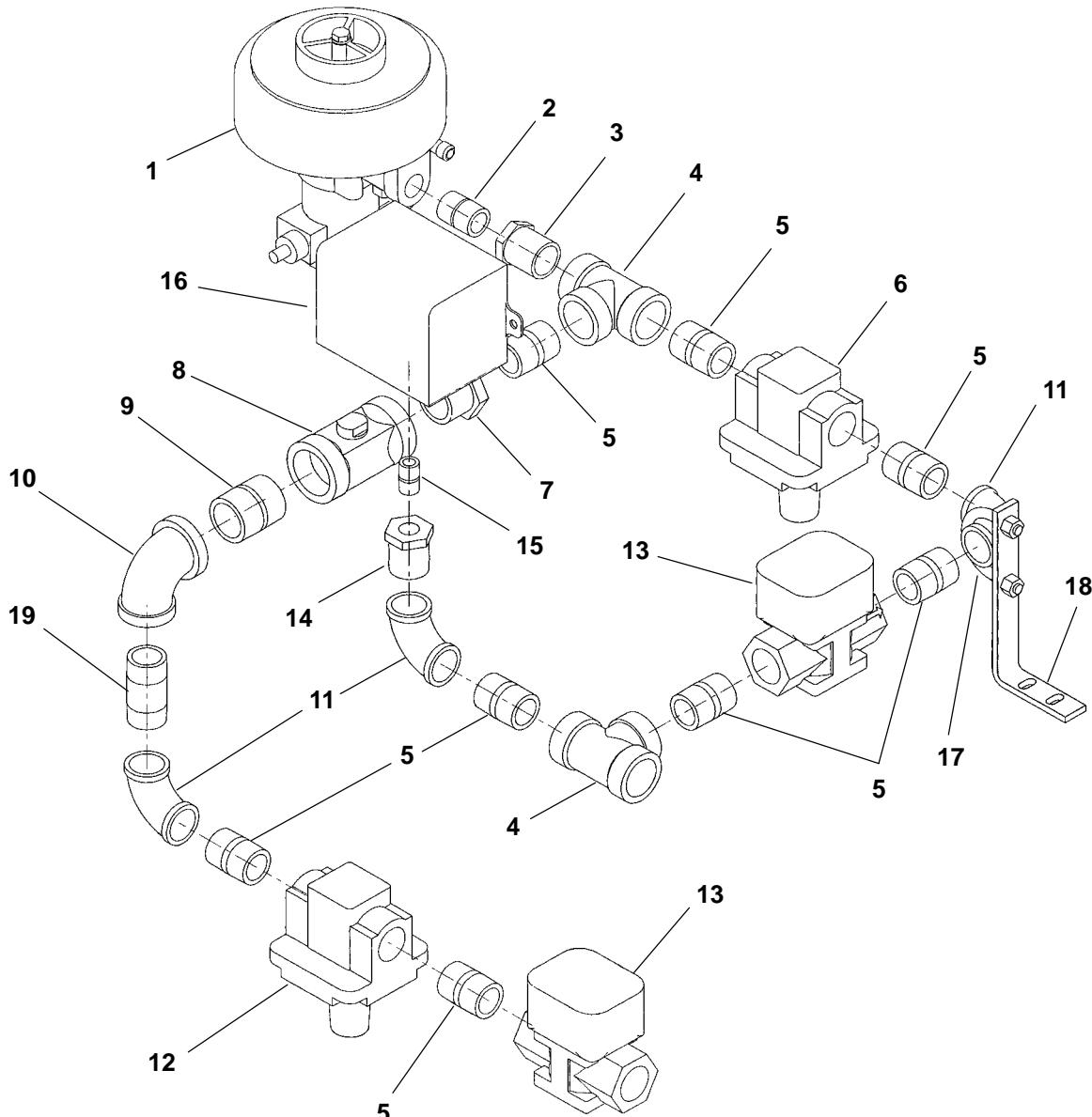
**Dual Fuel System**  
**Natural Gas/LP Liquid Auto Conversion**



C090

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1		1	Carburetor (See Separate Page for Part Numbers)	7	141-0971	1	Gasket, Carburetor
2	179-2728	1	Converter Assembly (See Separate Page for Part Numbers)	8	854-0020	2	Washer, ET Lock (3/8")
3	505-0022	1	Bushing, Reducer	9	868-0003	2	Nut, Hex (3/8"-24)
4	502-1030	1	Connector, Hose	10	503-1565	1	Hose, LPG
5	850-0055	2	Washer, Lock (7/16")	11	503-0398	2	Clamp, Hose
6	800-0069	2	Screw, Hex Head Cap (7/16-14 x 3/4")	12	331-0027	1	Connector, Romex
				13	332-3438	1	Clamp, Loop
				14	800-0007	2	Screw, Hex Head Cap (1/4-20 x 1")
				15	870-0212	2	Nut, Lock Flange (1/4"-20)

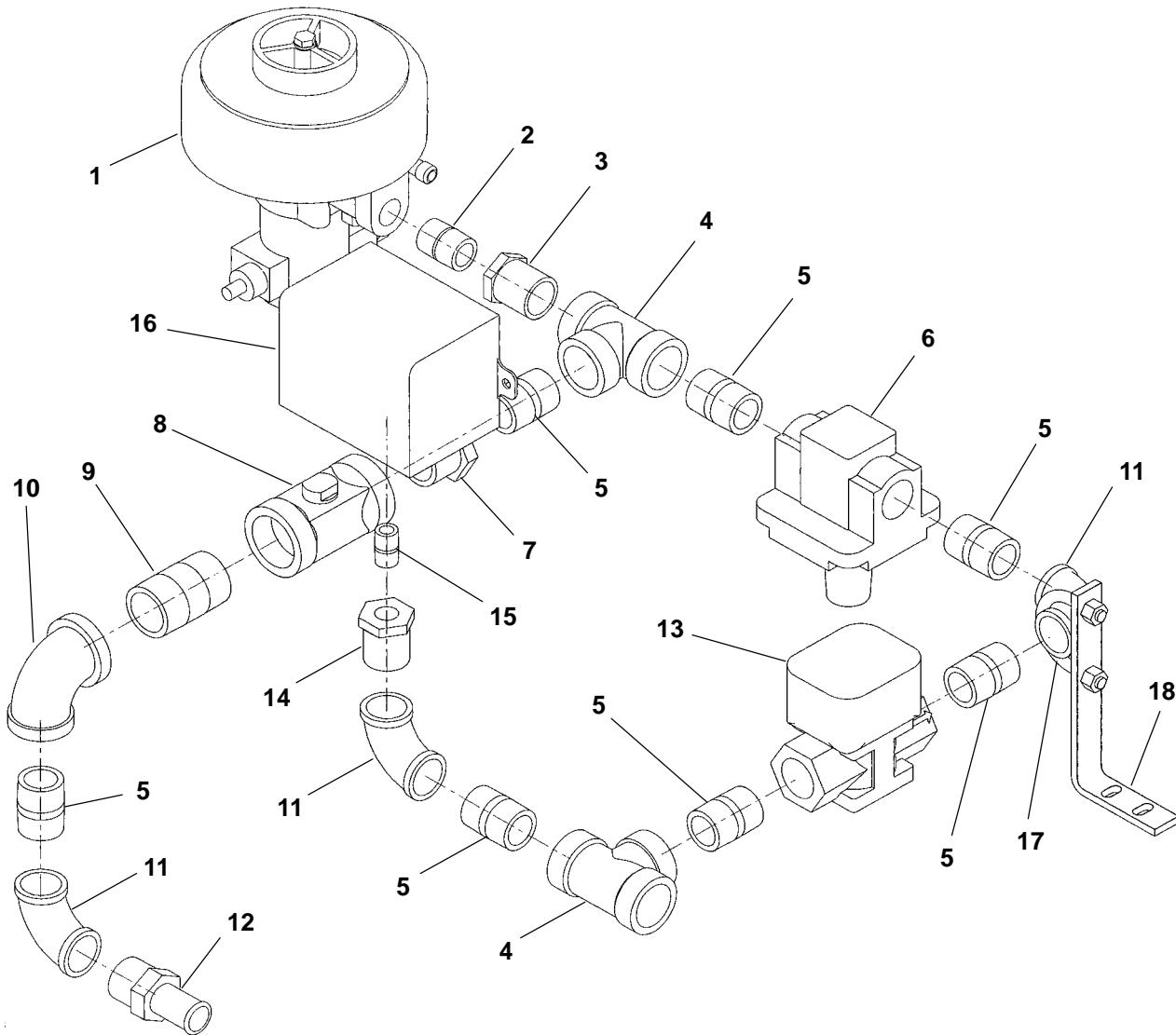
**Carburetor Assembly for Dual Fuel System  
Natural Gas/LPG Vapor Auto Conversion**



C065

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1066	1	Carburetor	8	148-0626	1	Valve, Load Adjusting
	150-0638	1	Joint, Ball	9	505-0004	1	Nipple, Pipe
	850-0040	1	Washer, Lock (1/4")	10	505-0356	1	Elbow, Reducer - 90°
	868-0001	1	Nut, Hex Jam (1/4"-28)	11	505-0132	3	Elbow, Pipe
2	505-0100	1	Nipple, Pipe	12	148-0637	1	Regulator, LP Vapor
3	505-0021	1	Bushing, Reducer (3/4NPT x 1/2"NPT)	13	307-0312-01	2	Valve, Solenoid
4	505-0166	2	Tee, (3/4"NPT)	14	505-0020	1	Bushing, Reducer
5	505-0102	8	Nipple, Close (3/4NPT x 1-3/8")	15	505-0099	1	Nipple, Pipe
6	148-0597	1	Regulator, Natural Gas	16	148-0627	1	Switch, Pressure
7	505-0129	1	Bushing, Reducer (1"NPT x 3/4"NPT)	17	155-1015	1	Clamp, Muffler
				18	148-0994	1	Brace, Fuel System
				19	505-0085	1	Nipple, Pipe

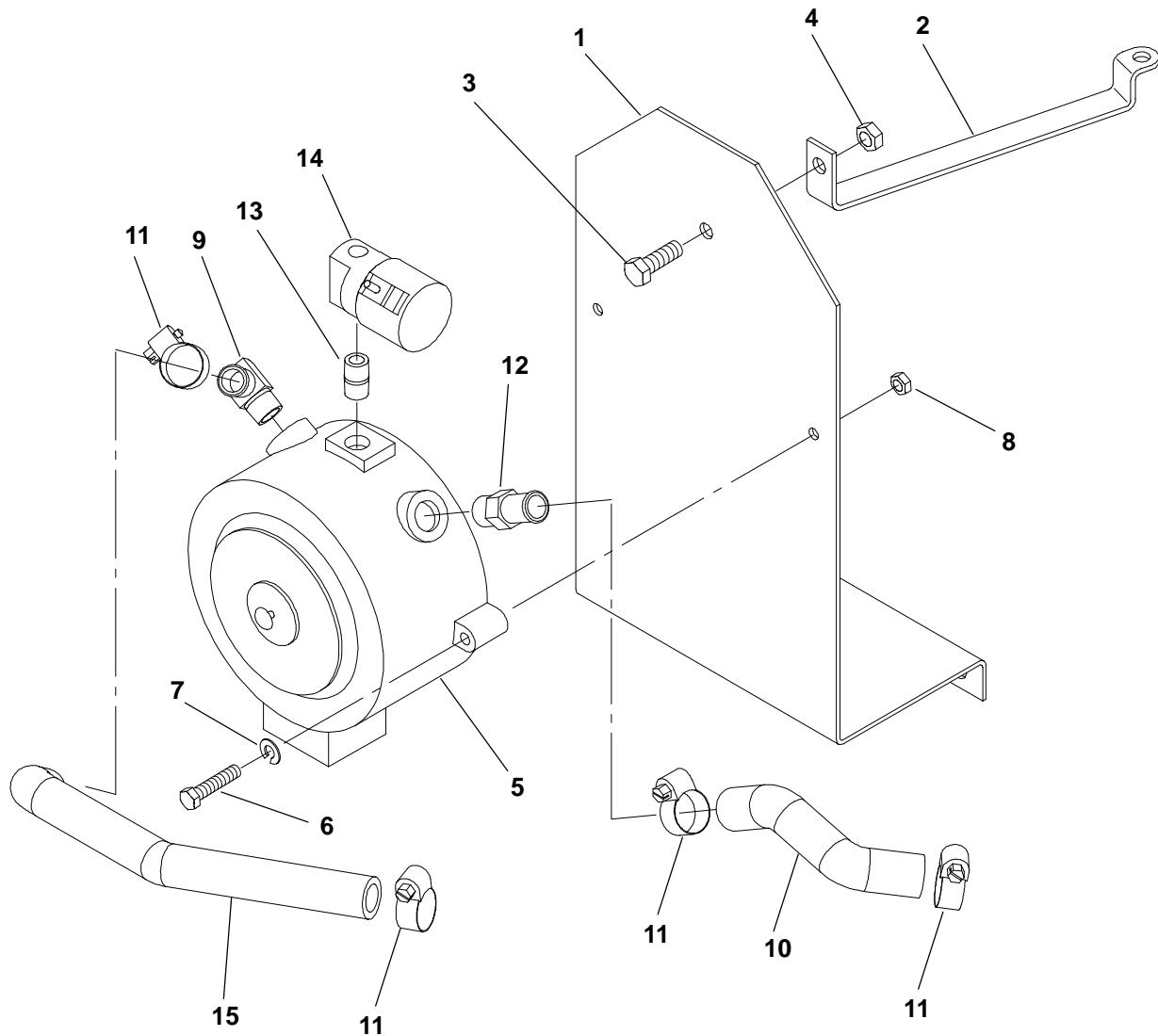
**Carburetor Assembly for Dual Fuel System  
Natural Gas/LP Liquid Auto Conversion**



C090

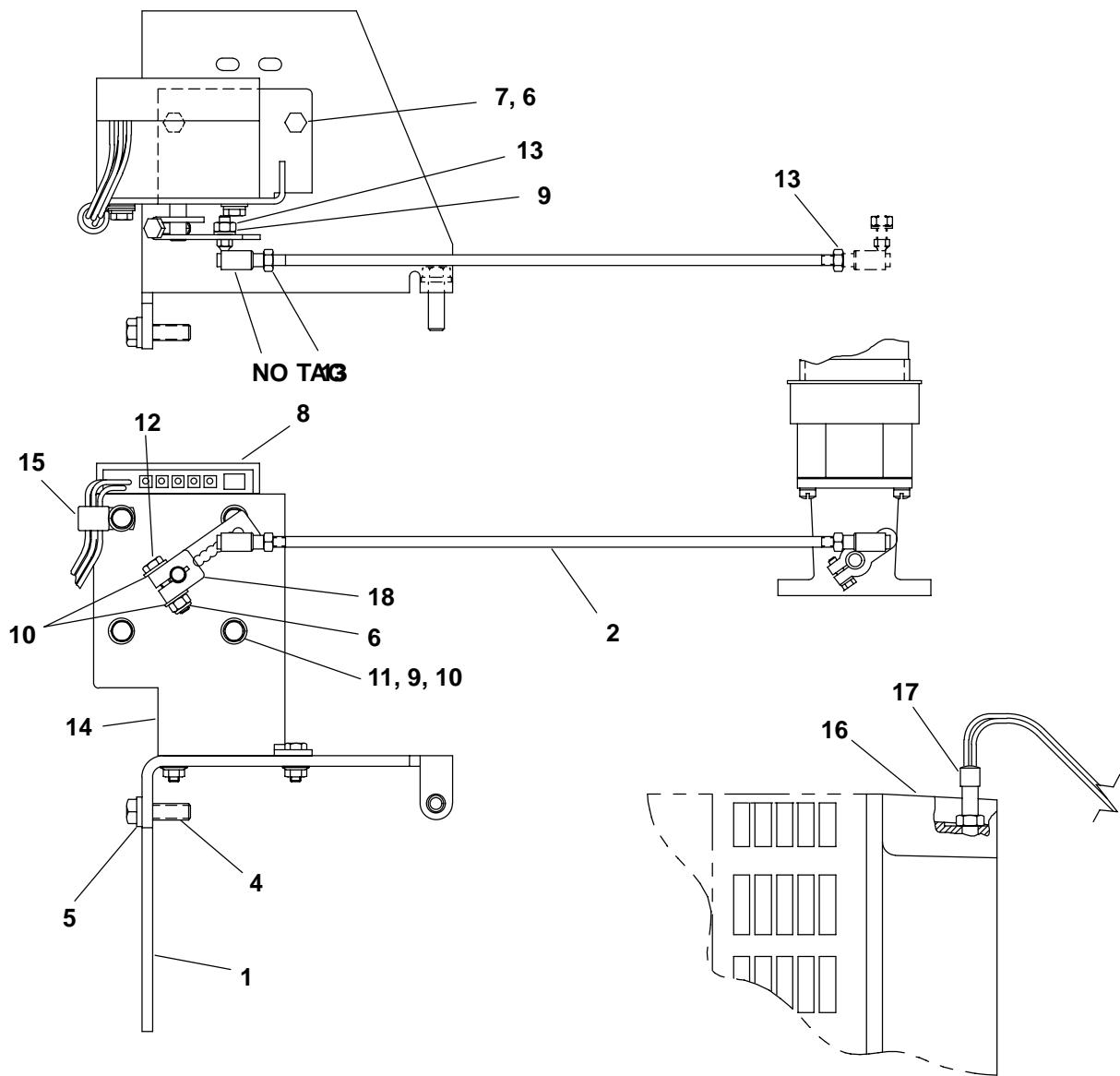
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1066	1	Carburetor	8	148-0626	1	Valve, Load Adjusting
	150-0638	1	Joint, Ball	9	505-0107	1	Nipple, Pipe
	850-0040	1	Washer, Lock (1/4")	10	505-0356	1	Elbow, Reducer – 90°
	868-0001	1	Nut, Hex Jam (1/4"-28)	11	505-0132	3	Elbow, Pipe
2	505-0100	1	Nipple, Pipe	12	502-1236	1	Connector, Hose
3	505-0021	1	Bushing, Reducer (3/4NPT x 1/2"NPT)	13	307-0312-01	1	Valve, Solenoid
4	505-0166	2	Tee, (3/4"NPT)	14	505-0020	1	Bushing, Reducer
5	505-0102	7	Nipple, Close (3/4NPT x 1-3/8")	15	505-0099	1	Nipple, Pipe
6	148-0597	1	Regulator, Natural Gas	16	148-0627	1	Switch, Pressure
7	505-0129	1	Bushing, Reducer (1"NPT x 3/4"NPT)	17	155-1015	1	Clamp, Muffler
				18	148-0994	1	Brace, Fuel System

## Gas Converter Assembly



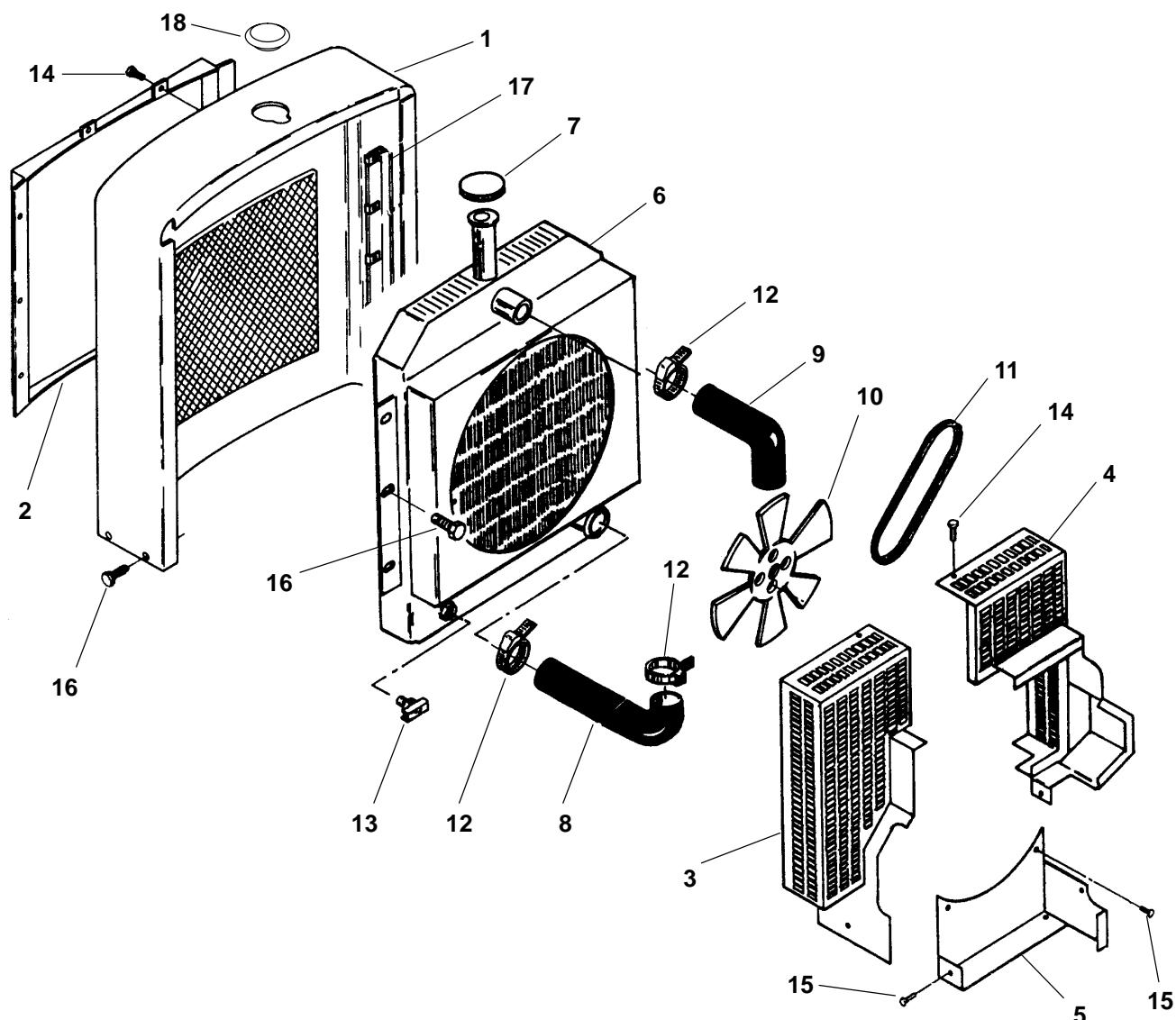
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-1053	1	Bracket, Converter – Mounting	9	502-0942	1	Elbow, 90
2	148-0604	1	Support, Converter Mounting	10	503-1988	1	Hose, Engine Coolant (5/8 ID x 15-1/2" Long)
3	800-0025	1	Screw, Hex Head Cap (5/16-18 x 5/8")	11	503-0183	4	Clamp, Hose
4	821-0014	1	Nut, Whizlock (5/16-18 x 1/2")	12	502-0943	1	Connector, Hose (3/8"NPT)
5	148-0625	1	Converter Assembly, Gas	13	505-0099	1	Nipple, Pipe (1/4"NPT)
6	800-0009	2	Screw, Hex Head Cap (1/4-20 x 1-1/2")	14	307-0268-01	1	Valve, Solenoid
7	850-0040	2	Washer, Lock (1/4")	15	503-1988	1	Hose, Engine Coolant (5/8 ID x 21-1/2" Long)
8	862-0001	2	Nut, Hex (1/4"-20)				

## Governor



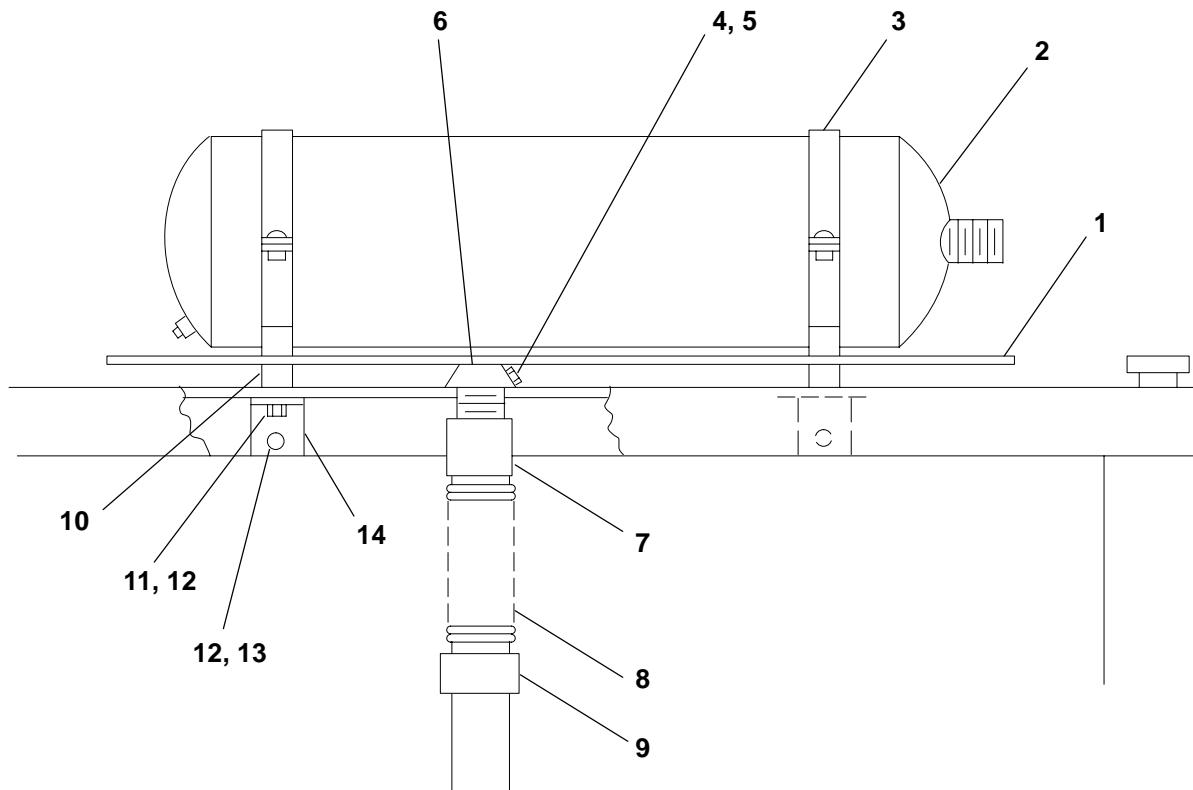
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	150-2644	1	Bracket, Governor	9	850-0040	4	Washer, Lock (1/4")
2	150-2616	1	Rod, Governor 14.5"	10	526-0018	4	Washer, Flat (1/4")
3	150-2615	1	15.5"	11	800-0602	4	Screw, Hex Head Cap (1/4-28 x 3/4")
4	800-0051	2	Joint, Ball	12	800-0008	1	Screw, Hex Head Cap (1/4-20 x 1-1/4")
5	850-0051	2	Screw, Hex Head Cap (3/8-16 x 1-3/4")	13	868-0001	3	Nut, Tappet (1/4"-28)
6	870-0212	2	Washer, Lock (3/8")	14	150-2614	1	Bracket, Governor
7	800-0005	2	Nut, Self-Lock (1/4"-20)	15	332-1554	1	Clamp, Loop
8			Screw, Hex Head Cap (1/4-20 x 3/4")	16	231-0148	1	Adaptor, Generator
			Governor	17	150-2651	1	Pick-up, Magnetic
	150-2692-01	1	MPU Type	18	150-2620	1	Lever, Governor
	150-2692-02	1	Ignition Type				

## Radiator



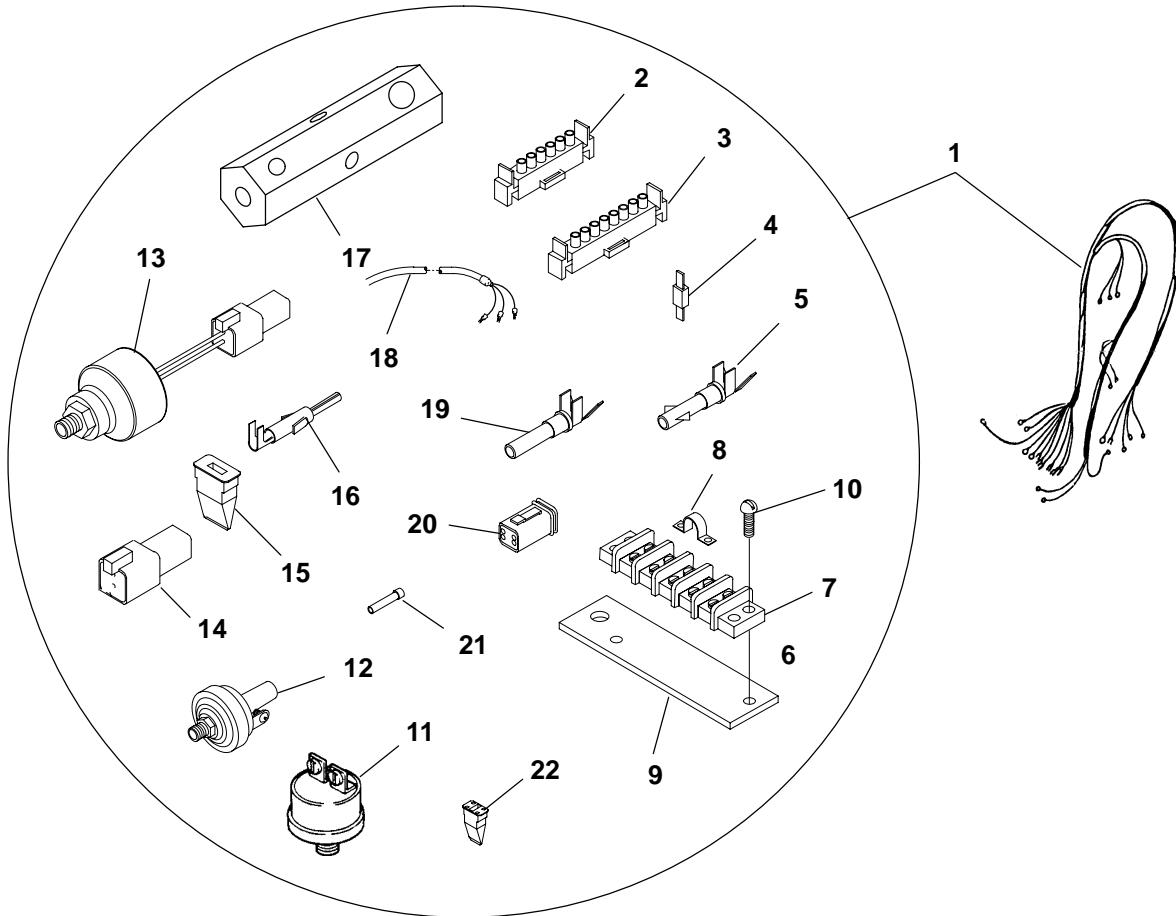
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-3176	1	Panel, Front	12	503-0365	4	Clamp, Hose
2	405-1054	1	Flange, Air Duct	13	504-0003	1	Cock, Drain
3	130-4246	1	Guard, Belt - Right Side	14	821-5000-05	18	Screw, Cap Hex Head (#10-32 x 1/2")
4	130-4245	1	Guard, Belt - Left Side	15	821-5002-03	4	Screw, Lockhead (1/4-20 x 1/2")
5	130-4252	1	Guard, Belt - Lower	16	821-5003-01	14	Screw, Lockhead (5/16-18 x 1/2")
6	130-4361	1	Radiator (Includes Cap)	17	870-0114	6	Nut, Retainer (5/16"-18)
7	130-3929	1	Cap, Radiator	18	517-0245	1	Plug
8	503-0490	1	Hose, Radiator - Lower				
9	503-0491	1	Hose, Radiator - Upper				
10	130-1236	1	Fan				
11	511-0075	1	Belt, Drive				

## Muffler



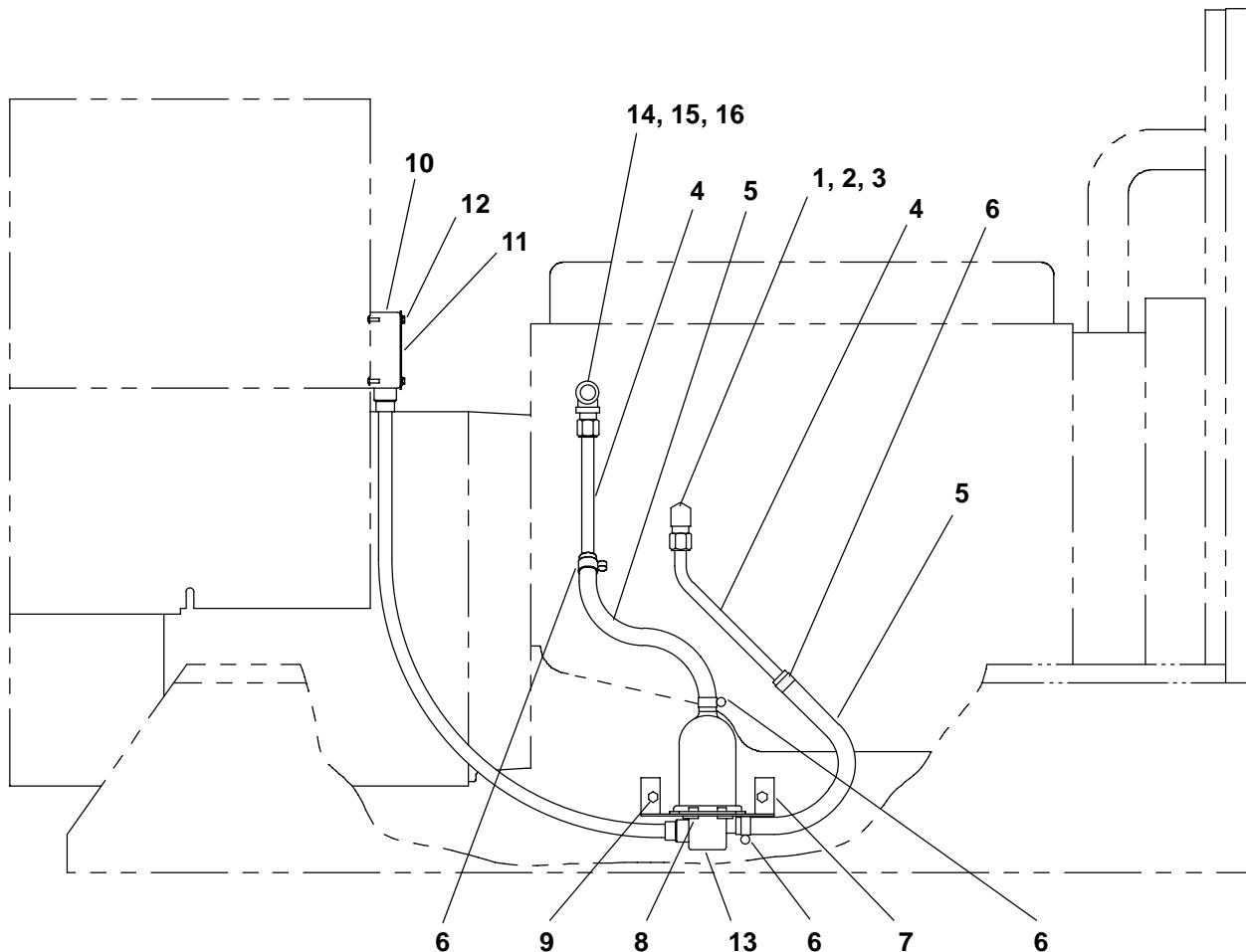
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	155-0978	1	Shield, Heat	9	505-0454	1	Union (2")
2	155-0988-01	1	Muffler	10	155-1430	4	Spacer, Muffler
3	140-0649	2	Band Assembly	11	800-0037	4	Screw, Hex Head Cap (5/16-18 x 3")
4	813-0105	2	Screw, Round Head Machine (10-32 x 1")	12	870-0048	10	Nut, Lock (5/16-18)
5	870-0188	2	Nut, Lock (10-32)	13	800-0026	6	Screw, Hex Head Cap (5/16-18 x 3/4")
6	155-1420	1	Shield, Rain				
7	505-0203	1	Coupling (2")	14	155-3000	2	Support, Muffler
8	155-1593	1	Tube Assembly, Exhaust				

## Wiring Harness Engine to Control



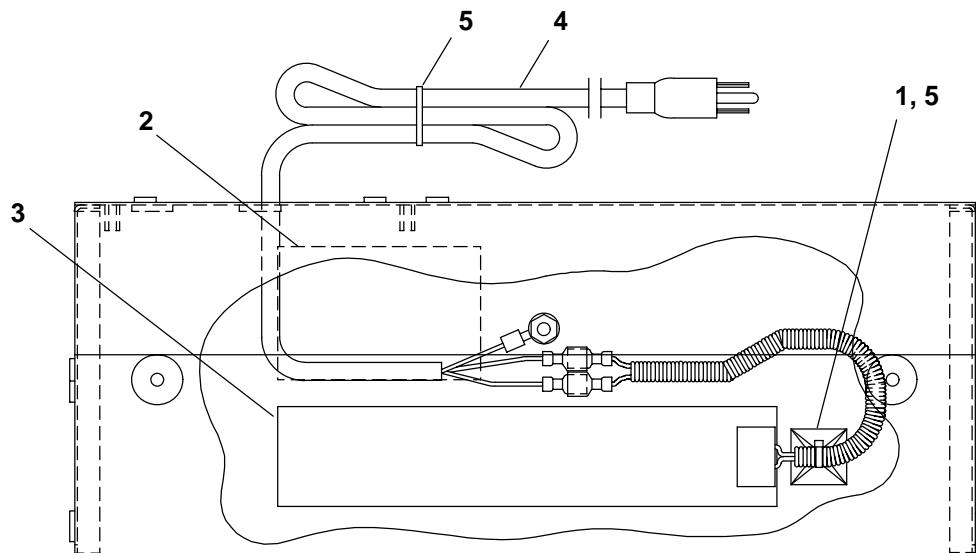
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-3322	1	Harness, Wiring – Engine to Control	11	309-0641-03	1	Switch, Oil Pressure (Closes at 14 lbs. Descending) (S1)
2	323-1304	1	Housing, Connector (6 Place) (J2)	12	309-0641-07	1	Switch, Oil Pressure (Closes at 20 lbs. Descending) (S5-Pre-Alarm)
3	323-1306	1	Housing, Connector (8 Place) (J1)	13	193-0448	1	Sender, Oil Pressure (E1) (Includes Parts Marked #)
4	357-0030	2	Rectifier, Silicon (CR1)	14	323-1549	1	#Connector, Receptacle – 4 Place
5	323-1200	A/R	Socket, Contact	15	323-1548	1	#Wedge, Receptacle
6	332-3276-01	1	Bracket, Mounting – Terminal (Includes Parts Marked *)	16	323-1492	4	#Socket, Contact
7	332-0604	2	*Block, Terminal (5 Place)	17	120-1312-02	1	Manifold, Oil Pressure
8	332-1043	8	*Jumper	18	166-0853	1	Harness, Ignition
9			*Bracket, Mounting	19	323-1492	A/R	Socket, Contact
	319-2006-01	1	Marked "26" (T26)	20	323-1546	1	Plug, Connector – 4 Place
	319-2006-02	1	Marked "GND" (GND-ENG)	21	323-1591	1	Plug, Seal
10	815-0538	4	*Screw, Machine Round Head W/IT (#8-32 x 1/2")	22	323-1548	1	Wedge, Plug (4 Pin)

## Coolant Heater

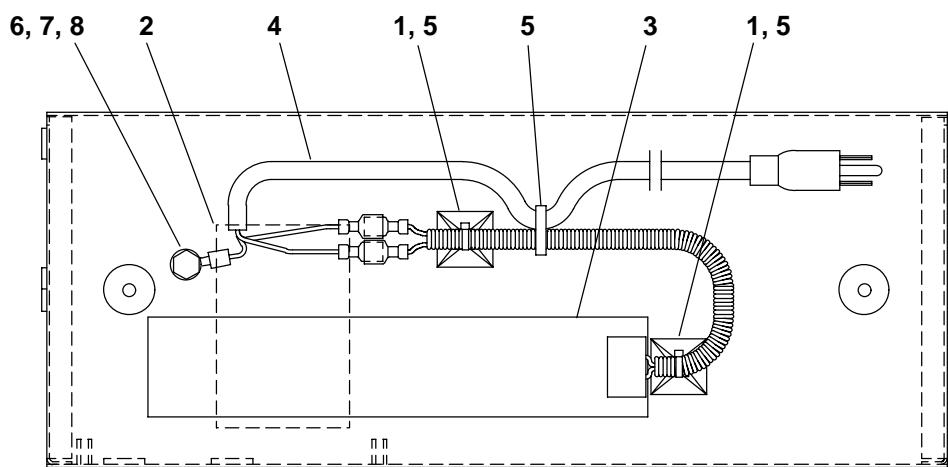


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	505-0099	1	Nipple, Close (1/4 x 7/8")	10	319-2407	1	Box, Extension
2	505-0018	1	Bushing, Reducer (1/2 x 1/4")	11	319-2408	1	Cover, Extension
3	502-1256	1	Elbow, Connector	12	815-0652	2	Screw, Hex Head Slot (10-32 x 1/2")
4	130-4281	2	Tube, Heater	13	333-0568-01	1	Heater, Engine Coolant 120V
5	503-1988	A/R	Hose, Coolant – High Temp.	14	505-0101	1	Nipple, Close (3/4")
6	503-0183	4	Clamp, Hose	15	505-0060	1	Tee, Pipe (3/8")
7	148-1038	1	Bracket, Coolant Heater	16	502-1215	1	Connector, Male
8	821-0010	2	Screw, Hex Head (1/4-20 x 1/2")				
9	821-0014	2	Screw, Hex Head (5/16-18 x 1/2")				

## Control Heater



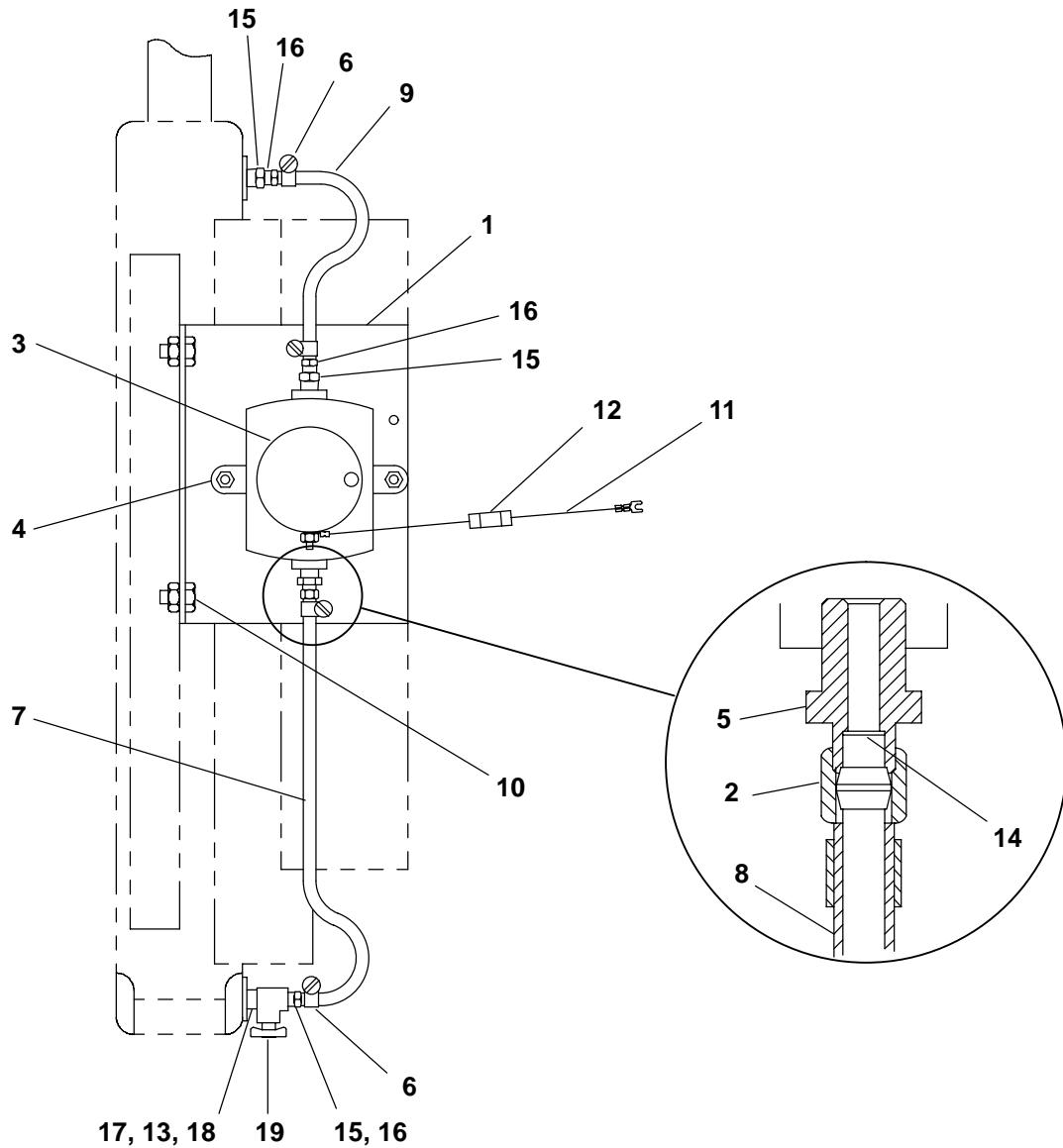
Inside Floor Installation



Outside Floor Installation

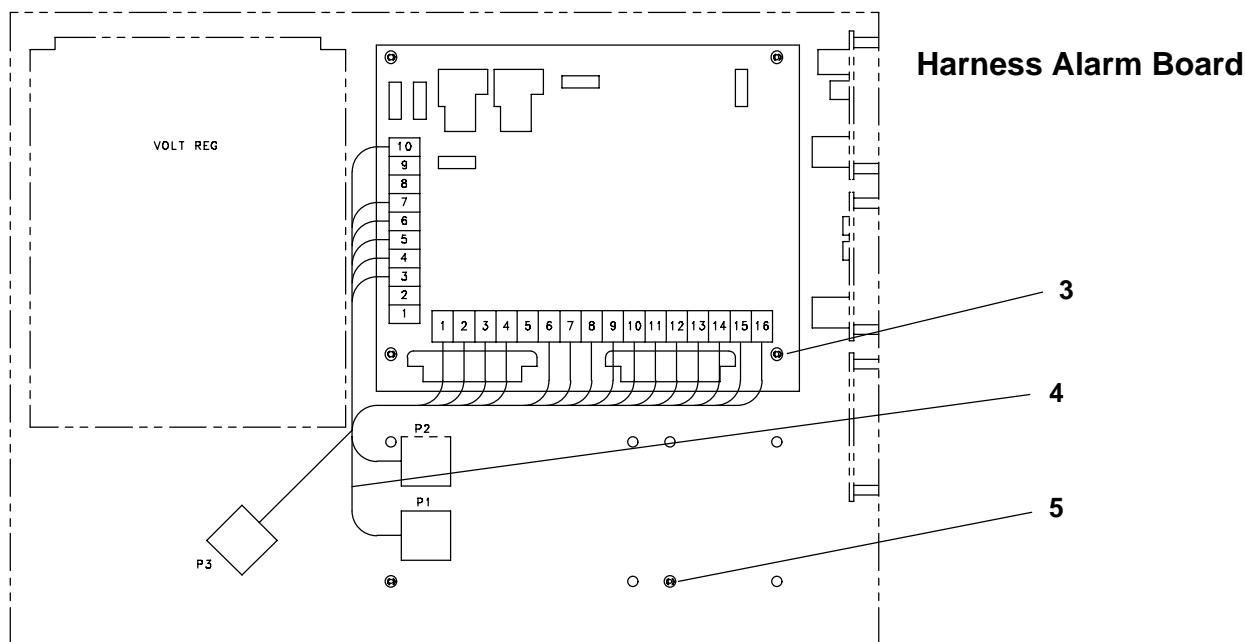
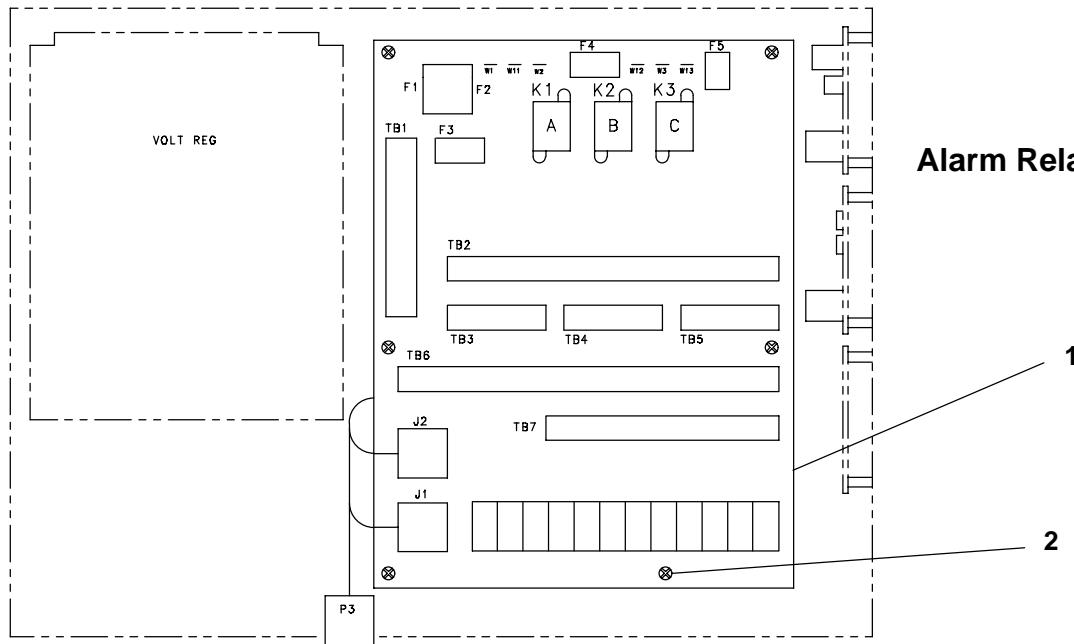
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-2420	2	Mount, Cable Tie	5	332-0942	3	Tie, Cable
2	098-6195	1	Label, Caution	6	800-0024	1	Screw, Hex Head Cap (5/16-18 x 3/4")
3	300-4515-01	1	Heater Assembly, Control (120V)	7	870-0257	1	Nut, Hex (5/16-18)
4	335-0173	1	Cable Assembly, Control Heater	8	856-0008	2	Washer, EIT (5/16")

## Low Coolant Level Switch



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-4659	1	Plate, Low Level Switch	11	338-3615	1	Harness, Low Coolant Level (Includes Diode)
2	502-0801	1	Connector, Hose – Male 1/4"	12	357-0030	1	Diode (Included in Harness)
3	193-0329	1	Switch, Coolant Level	13	502-0156	1	Elbow, Street Pipe
4	870-0212	2	Nut, Lock Head (1/4"-20)	14	526-0110	1	Washer, Copper
5	502-0802	1	Bushing, Reducer (1/2 x 1/4")	15	502-0029	3	Bushing, Reducer
6	503-0685	4	Clamp, Hose	16	502-0395	3	Connector, Hose (1/8 NPT x 3/8" Hose)
7	503-1418	1	Hose, 1/4" ID, 18" Long	17	505-0017	1	Bushing, Reducer
8	093-0065	2	Tubing, Copper 2" Long	18	502-0164	1	Tee, Street
9	503-1418	1	Hose, 1/4" ID, 25" Long	19	504-0003	1	Valve, Drain
10	821-0016	2	Screw, Lock Head (5/16-18 x 3/4")				

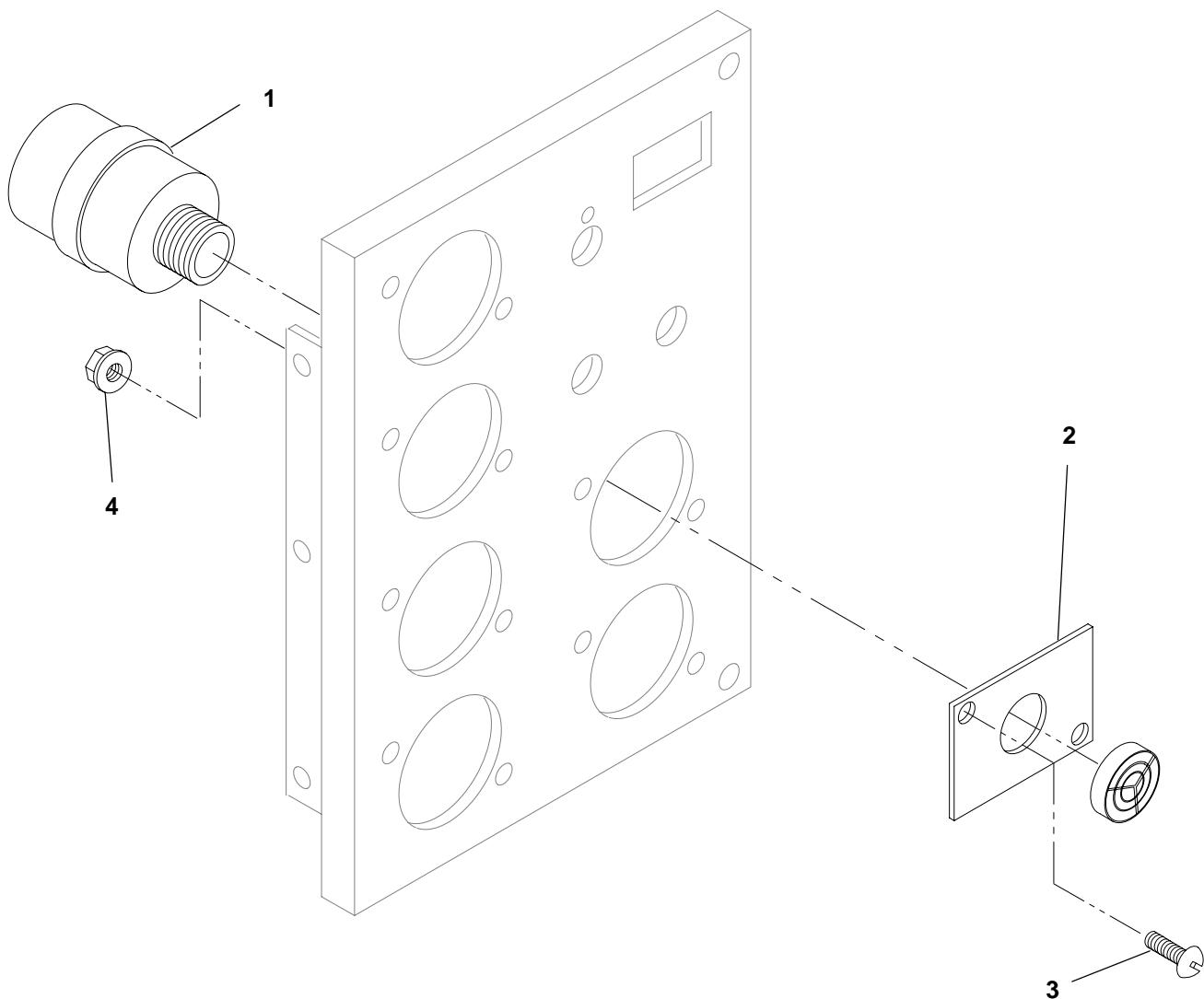
## Alarm Boards



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	300-4111-01	1	Alarm Relay PCB, 12V Without Form C	3	870-0517-01	4	Stand-Off, Alarm Board (1-1/4" Long)
	300-4111-03	1	With Form C	4	338-2875	1	Harness, Form C Board
2	815-0937	6	Screw, Pan Head (#6-32 x 1/2")	5	870-0517-02	2	Stand-Off, Alarm Board (5/16" Long)



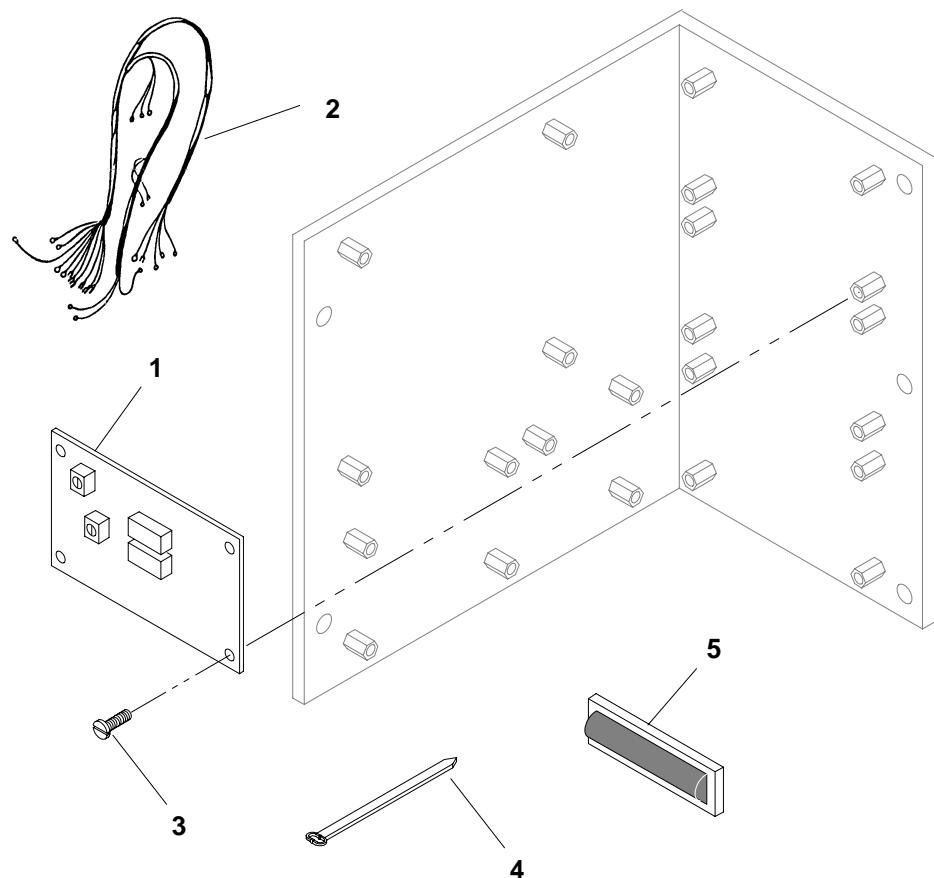
## Audible Alarm



KL39

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	333-0133	1	Signal, Audible	4	870-0183	2	Nut, Hex W/ET (#6-32)
2	319-0898	1	Plate, Audible Signal				
3	815-0385	2	Screw, Machine – Round Head (#6-32 x 1/2)				

## Over/Under Voltage



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	307-2868	1	Relay, Over/Under Voltage	4	332-1445	A/R	Tie, Cable
2	338-3366	1	Harness, Over/Under Voltage	5	322-0431-03	1	Lamp, Indicating
3	815-0937	4	Screw, Pan Head – Crossed Recessed Thread Forming (6-32 x 1/2)				

## Introduction

This Parts Manual applies to the Standard Sets listed below. The illustrations are arranged in groups of related items, and each part or assembly is identified by a Reference Number. All parts illustrated are typical, and unless otherwise mentioned in the description column of the parts lists or page heading, the parts are interchangeable between models.

These typical illustrations are subject to change and reflect only the latest replacement parts arrangement. The Right and Left sides of the Set are determined by FACING the engine end (FRONT) of the Set.

## Set Data Table

MODEL IDENTIFICATION	RATING	RPM	RATING	BATTERY	VOLTAGE
25.0EK - * / # 0	25,000 WATTS	1500	RPM	24	VDC
30.0EK - * / # 0	30,000 WATTS	1800	RPM	24	VDC
35.0EK - * / # 0	35,000 WATTS	1800	RPM	24	VDC
37.5EM - * / # 0	37,500 WATTS	1500	RPM	24	VDC
45.0EM - * / # 0	45,000 WATTS	1800	RPM	24	VDC

## Electrical Data Table

*VOLTAGE CODES	VOLTS	HERTZ	WIRE	PHASE	NOTES
B (3)	120/240	60	3	1	
E (6D)	240/480	60	4	3	
F (7)	220/380	60	4	3	
H (9X)	347/600	60	4	3	
L (15)	120/240	60	12	1	+
L (15)	120/208	60	12	3	+
	120/240				
	127/220				
	139/240				
	240/416				
	254/440				
	227/480				
N (53)	120/240	50	3	1	
P (53C)	120/240	50	4	1	
Z (515)	110/220	50	12	1	+
Z (515)	115/230				
Z (515)	110/190	50	12	3	+
	110/220				
	115/200				
	115/230				
	120/208				
	127/220				
	220/380				
	230/400				
	240/416				
	254/440				

\* - Voltage codes follow model letters designations.

# - Specification Number: Number 1 is Standard, all others indicate variations.

0 - Specification Letter: Letter advances ( A to B, B to C, etc) with major manufacturing changes.

± - The Stators are Reconnectible.

## Engine Replacement Parts

All engine replacement parts must be ordered from the engine manufacturer, except those modified or added by Onan. When ordering engine parts, refer to the manufacturer's nameplate and supply the Model, Spec, Serial Numbers and other available information. Refer to the engine manufacturer's manuals for your nearest authorized distributor or parts center; or contact the Onan distributor from whom you purchased this set for assistance in ordering replacement parts.



**Cummins**  
**Power  
Generation**

## Index

Actuator, Governor 11  
Actuator, Switch 18  
Adapter, Breather 7  
Adapter, Carburetor 13,15,17,21,23,25,  
27,31,37,41,43  
Adapter, Engine to Generator 5  
Adapter, Hose 37,39,41,43  
Adapter, Pipe to Hose 48,51,83  
Adapter, Tube 48  
Alternator 2,3  
Anti-Dieseling System 13,15,17,18,19,20  
Arm, Anti-Dieseling System 18,19,20  
  
Band, Mounting - Exhaust Muffler 59  
Bar, Locking 71  
Bearing, Ball - Generator 85,87,89  
Bell, End 85  
Belt, Drive 33  
Belt, Drive - Alternator 2,3  
Block, Terminal 65,67,69,71,73,81,83,91  
Board, Delay - Time 63  
Board, Monitor - Engine 63,65  
Board, Relay 63  
Board, Sensor - Magnetic 63  
Board, Terminal 5  
Box, Control 67,69,71,73  
Box, Switch - Dual Phase 79  
Box, Switch - Thermostatic 49,53  
Brace, Bracket - Lifting  
Brace, Mounting Bracket - Converter 23,27  
Bracket and Nipple Assembly 39,41,43,47  
Bracket, Mounting - Capacitor 82  
Bracket, Mounting - Circuit Breaker 97,99  
Bracket, Mounting - Converter 23,27  
Bracket, Mounting - Current Transformer 75  
Bracket, Mounting - Day Tank 29  
Bracket, Mounting - Electronic Governor 11  
Bracket, Mounting - Mechanical Gauges 83  
Bracket, Mounting - Radiator 33  
Bracket, Mounting - Rheostat 69,71,73  
Bracket, Mounting - Solenoid 18,19,20  
Bracket, Mounting - Toggle Switch 15,17  
Bracket, Mounting - Vernier Throttle 28  
Bracket, Mounting - Watt Transducer 81  
Bracket, Support 25,43,57  
Breaker, Circuit 67,69,71,73,97,99  
Brush, Generator 85  
Bushing, Cable 77  
Bushing, Box - Output 95  
  
Cable, Battery 5  
Cable, Coil to Distributor 9  
Cable, Electrical 7,76,94  
Cable, Spark Plug 9  
Cam, Switch 18  
Cap, Radiator 33,45  
Cap and Indicator, Fuel 31  
Capacitor 2,9,65,82,93  
Carburetor, Vapor - Gas 21,23,25,27  
Carburetor, Gasoline 13,15,17  
Chassis 55,91  
Clamp, Cable 28,51,91  
Clamp, Door 57  
Clamp, Hose 37,39,41,43,45,47,48,53  
Clamp, Loop 7,43,63,65,67,69,71,73,83,92  
Clamp, Mounting - Capacitor 82  
Cleaner, Air 1  
Clip, Fastener 67,69,71  
Clip, Relay 67

Cock, Drain 7,17,23,27,33,37,39,41,43,  
45,47,51,53  
Coil, Ignition 9  
Contact Assembly 87,89  
Contractor, Electrical 51  
Control, Engine 63,65  
Control, Generator 67,69  
Control, Generator - Switching  
Regulator 71  
Controller, Governor 11  
Converter, Gas - Liquid 17,23,27  
Cooling System, Non-Regulated City Water  
and Wet Manifold 41  
Cooling System, City Water and Heat  
Exchanger 45  
Cooling System, City Water and  
Standpipe 47  
Cooling System, Radiator 33  
Cooling System, Radiator - Remote 37  
Cooling System, Regulated City Water and  
Wet Manifold 43  
Cooling System, Water - City 39  
Cover, Box - Watt Transducer 83  
Cover, Box - Circuit Breaker 97,99  
Cover, Box - Thermostatic Switch 49  
Cover, End Bell 85  
Cover, Hole - Fuel Pump 21,23,25,27  
Cover, Housing - Choke 13,15,17  
Cover, Starter Hole 7  
Cover, Thermostat 76  
Cross, Pipe 51  
  
Dampener, Vibration 69,71,73  
Dial, Meter - Watt 81  
Diode 48  
Disk, Drive - Generator 85,87,89  
Door, Access 57  
Door, Control 63,67  
Duct, Heater 12  
  
Elbow, Pipe - 90° 13,15,17,21,23,25,27  
29,37,39,41,43,45,47,51,59  
Element, Air Cleaner 1  
Engine Parts, Left Side 7  
Engine Parts, Right Side 5  
Exchanger, Heat 45  
Exciter, Generator 87,89  
Extension, Plunger 18,20  
  
Fan, Alternator 3  
Fan, Cooling - Generator 85,87,89  
Fan, Radiator 33  
Fill, Oil 7  
Filter, Oil 8  
Filter, Regulator - Voltage 93  
Flange, Duct - Air 33  
Flange, Exhaust - Manifold 37,41,43  
Flasher 65  
Frame, Holddown - Battery 55  
Fuel System, Automatic Changeover or  
Liquid Gas and Natural Gas 25  
Fuel System, Gasoline 13  
Fuel System, Gasoline and Liquid Gas  
Vapor or Natural Gas 15  
Fuel System, Gasoline and Liquid Gas 17  
Fuel System, Liquid Gas 23  
Fuel System, Liquid Gas Vapor or Natural  
Gas 21  
Fuse 69

## Index

Gasket, Adapter - Carburetor 13,15,17, 21,23,25,27  
Gasket, Carburetor 13,15,17,27  
Gasket, Manifold - Liquid Cooled 37,41,43  
Gasket, Mounting Bracket -  
    Solenoid 18,19,20  
Gasket, Mounting Hole - Fuel Pump 21,23, 25,27  
Gasket, Tube - Exhaust 7  
Gauge, Oil Pressure 63,65,83  
Gauge, Temperature - Oil 63,65  
Gauge, Temperature - Water 63,65,83  
Gauges, Mechanical - Engine Control 83  
Gear, Ring 5  
Governor, Electronic 11  
Governor, Mechanical 10  
Grille, Housing - Control 77  
Grommet 49,53,67,69,71,73,81,91,92  
Guard, Belt 35,39,41,43,45,47  
Guard, Belt - Alternator 2,3  
Guard, Belt - Remote Radiator 37  
Guard, Fan 33,35

Hanger, Pipe 25  
Harness, Wiring 7  
Harness, Wiring - Electronic Governor 11  
Harness, Wiring - Engine to Control 63,65  
Harness, Wiring - Generator to Control 67  
Harness, Wiring - Magnetic Pickup 11  
Heater, Air 12  
Heater, Control 76  
Heater, Electrical 49,53,78,94  
Heater, Generator 94  
Heater, Water 49,51,53  
Hose 37,39,41,43,47,83,87,89  
Hose, Air - Flexible 12  
Hose, Preformed 45,47  
Hose, Rubber 5,7  
Hose, Rubber - Bulk 27,51,53  
Housing 77  
Housing, Control 77  
Housing, Set 57

Insulator, Filter - Voltage Regulator 93  
Insulator, Regulator - Voltage 91

Joint, Ball 10  
Jumper, Terminal Board 65,91

Key, Woodruff 2,3  
Kit, Repair - Carburetor 13,15,17  
Knob, Pointer 69,73  
Knob, Rheostat 69,71,73  
Knob, Shaft - Choke 13,15,17  
Knob, Switch - Rotary 67  
Knob, Switch - Selector 73

Lamp, Incandescent 63  
Latch, Hasp 33  
Light, Indicator 65,67,69,71,73  
Light, Panel 61  
Line, Fuel - Flexible 13,15,17,29,31,51  
Line, Fuel - Metal Tubing 13,15,17,29  
Line, Water 17,23,27  
Link, Anti-Dieseling System 18,19,20  
Lock, Handle 69,71,73

Manifold, Cooled - Liquid 37,41,43  
Meter, Ampere 63,67,69,71,73  
Meter, Frequency 67,69,71,73  
Meter, Time Totalizing 63,67,69,71,77  
Meter, Voltage 67,69,71,73  
Meter, Watt 67,81  
Mixer, Vapor - Gas 15,17  
Module, Indicator - Fault 63  
Mount, Vibration 57,67,81  
Muffler, Exhaust 61

Package, Mounting - Electronic Governor 11  
Panel, Access - Control Housing 77  
Panel, Control 65,69,71,73  
Panel, Control - Mechanical Gauges 83  
Panel, Housing - Radiator Front 33  
Pencil, Zinc 45  
Pin, Alignment 5  
Pin, Roll 18,20  
Plate, Mounting - Toggle Switch 15  
Plate, Mounting - Water Lever Switch 48  
Plate, Restricting - Carburetor  
    Adapter 13,15,17,21,23,25,27  
Plenum, Heater 12  
Plug, Distributor - Vacuum Advance 9  
Plug, Pipe - Square Head 29,31,41,43,45,47  
Plug, Plastic 69,71,73  
Potentiometer 63  
Pulley 10  
Pulley, Alternator 2,3  
Pump, Fuel 5

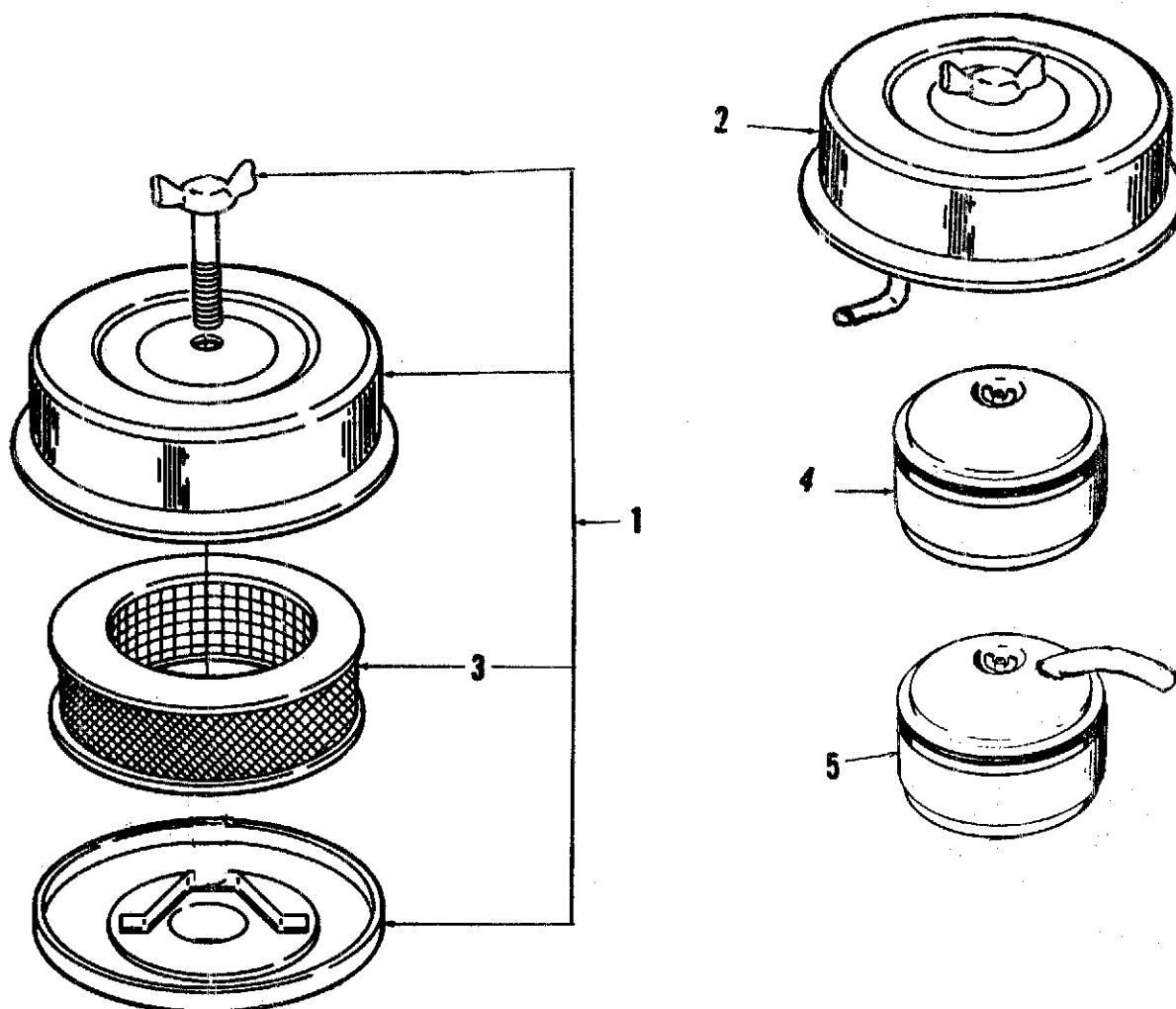
Radiator 35  
Reactor 69,71,91  
Receptacle, Fastener 67,69,71,73  
Rectifier 91,92  
Rectifier, Bridge 69  
Regulator, Pressure 15,21,25,27  
Regulator, Voltage 2,67,69,71,73,85,87, 89,90  
Relay 65,67,69,71,73  
Relay, Disconnect - Start 65  
Relay, Ignition 65  
Relay, Protection - Start 65  
Resistor 18,69,71,73,93  
Rheostat 67,69,71,73  
Ring, Collector 85  
Rotor, Exciter 92  
Rotor, Generator 85,87,89

Saddle, Mounting - Control 77  
Screen, Air - Generator 85  
Seal, "O" Ring 85  
Sender, Oil Pressure 5  
Sender, Temperature - Engine 5  
Sender, Temperature - Oil 5  
Sensor, Speed - Magnetic 11  
Shield, Heat 2,3,11  
Shield, Heat - Exhaust Muffler 59  
Shield, Rain 59  
Shim, Transformer - Current 75  
Sink, Heat 91,92  
Socket, Relay 67,69,71,73  
Solenoid, 12 VDC 18,19,20  
Solenoid, Start 5  
Spacer, Shield - Heat 59

## Index

Spacer, Sleeve - Alternator 2,3  
Spacer, Sleeve - Electrical Heater 76  
Spacer, Sleeve - End Bell 85,87,89  
Spacer, Sleeve - Voltage Regulator 87,89  
Spacer, Stepped - Exciter Rotor 92  
Spring, Brush 85  
Spring, Relay 65,69,71,73  
Standpipe 47  
Stator, Generator 85,87,89  
Stop 18,19,20  
Strap, Ground - Electrical 55,67,69,71,73  
Strap, Hasp 33  
Strap, Mounting - Fuel Tank 31  
Strap, Retaining 45  
Strip, Asbestos 59  
Strip, Foam 12  
Strip, Marker 65,67,69,71,73,81,83  
Stud 10,11,13,15,17,18,19,20,21,23,27,  
41,43,49,53,55,85,87,89  
Stud, Fastener 67,69,71  
Suppressor, Ignition 9  
Switch, Control - Vacuum 15,17,25,27  
Switch, Engine Temperature 5  
Switch, Level - Water 48  
Switch, Micro 18  
Switch, Oil Pressure 5  
Switch, Phase - Dual 75  
Switch, Pressure 25,51  
Switch, Push 83  
Switch, Rotary 67  
Switch, Selector 69,71,73  
Switch, Thermostat - Water 7  
Switch, Thermostatic 51,53  
Switch, Toggle 5,15,61,79  
Swivel, Anti-Dieseling System 18,20  
Tachometer 63  
Tank, Day 29  
Tank, Fuel 29,31  
Tee, Pipe 17,23,25,39,41,43,45,47,51  
Terminal, Ring 51  
Terminal, Transformer - Current 75  
Thermostat, Adjustable 76  
Throttle, Vernier 28  
Tie, Cable 93  
Transducer, Watt 91  
Transformer, Current 67,69,71,73,75  
Transformer, Voltage 69,71  
Tray, Battery 53  
Tube, Exhaust 7  
Tube, Exhaust - Flexible 59  
Tubing, Fiberglass - Bulk 51  
Valve 5  
Valve, Breather 7  
Valve, Control 25,27,31  
Valve, Fuel 15  
Valve, Globe 39,41,45,47  
Valve, Regulating - Temperature 43,45,47  
Valve, Relief - Vacuum 47  
Valve, Shut-Off - Fuel 17  
Valve, Solenoid 15,17,21,23,25,27,29,31,  
39,41,43,45,47  
Wheel, Fly 5  
Wrapper, Generator 77

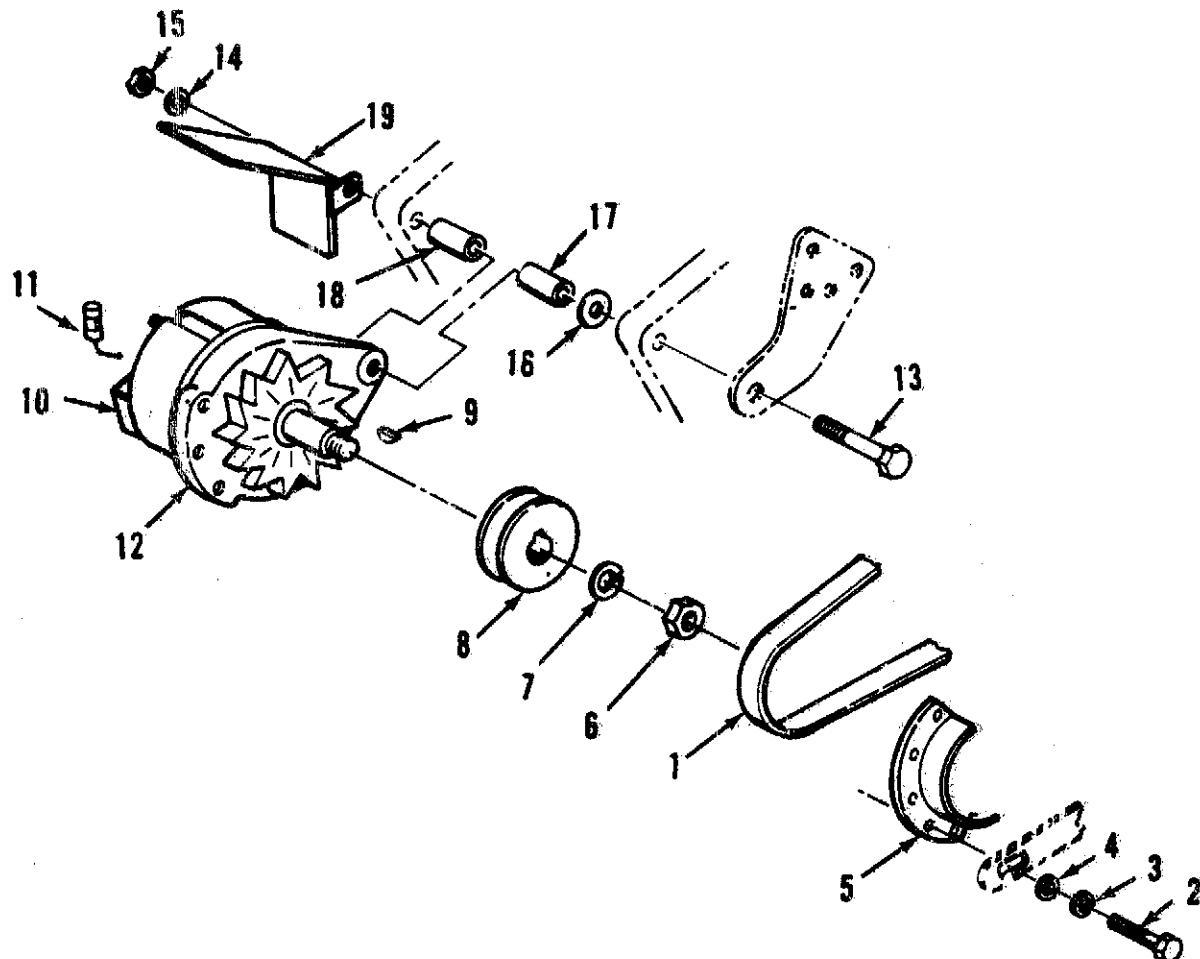
## Air Cleaner



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-1083	1	Cleaner, Air (Includes Element)
2	140-1583	1	Cleaner, Air with Breather Snorkel (Includes Element)

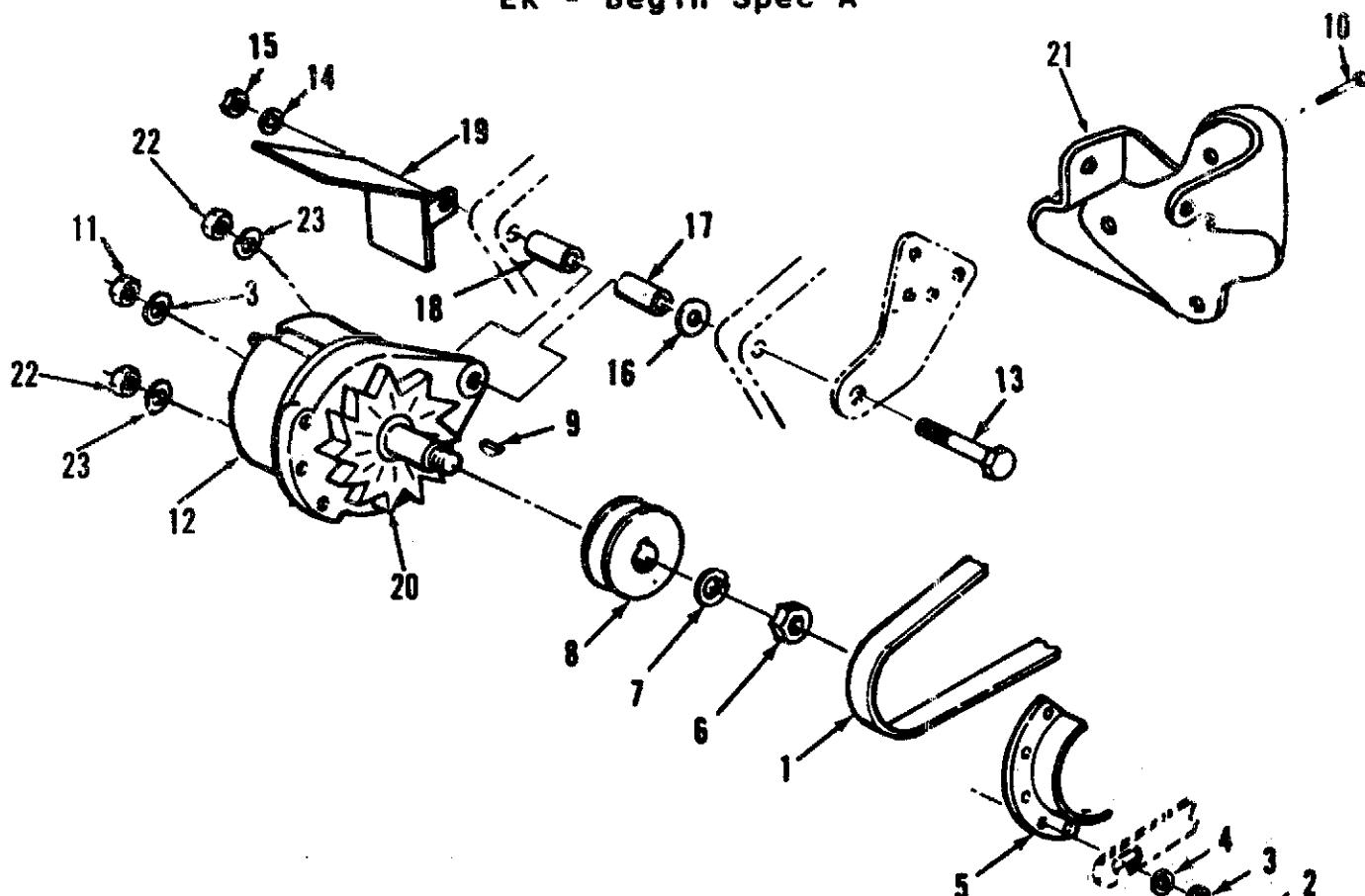
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	140-1089	1	Element
4	140-0261	1	Cleaner, Air - Oil Bath
5	140-0379	1	Cleaner, Air - Oil Bath with Breather Snorkel

**Alternator**  
**EK, EM - Spec C thru P**



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	511-0074	1	Belt, Drive	14	850-0055	1	Washer, Lock - Spring (7/16")
2	800-0027	1	Screw, Cap - Hex Head (5/16-18 x 7/8")	15	862-0004	1	Nut, Hex (7/16-14)
3	850-0045	1	Washer, Lock - Spring (5/16")	16	526-0100	1	Washer, Flat (1/2")
4	526-0030	1	Washer, Flat (3/8")	17	191-0571	1	Spacer, Sleeve (1-13/16"LG)
5	191-0725	1	Guard, Belt	18	191-0716	1	Soacer, Sleeve (2-3/4"LG)
6	191-0941	1	Nut, Hex (5/8-18)	19	191-0578	1	Shield, Heat
7	850-0070	1	Washer, Lock - Spring (5/8")				# - No longer available. For replacement, order kit 191-1873.
8	191-0623	1	Pulley				* - For replacement parts, contact the Distribution Division of Prestolite Electric, Inc., Arlington Heights, IL 60005; and provide the model number of alternator.
9	515-0093	1	Key, Woodruff (#5)				
10	191-1390	1	Regulator, Voltage				
11	312-0201	1	Capacitor				
12	#191-1388	1	*Alternator - 12 VDC				
13	800-0084	1	Screw, Cap - Hex Head (7/16-14 x 4-1/2")				

Alternator  
EK, EM - Begin Spec R  
EK - Begin Spec A

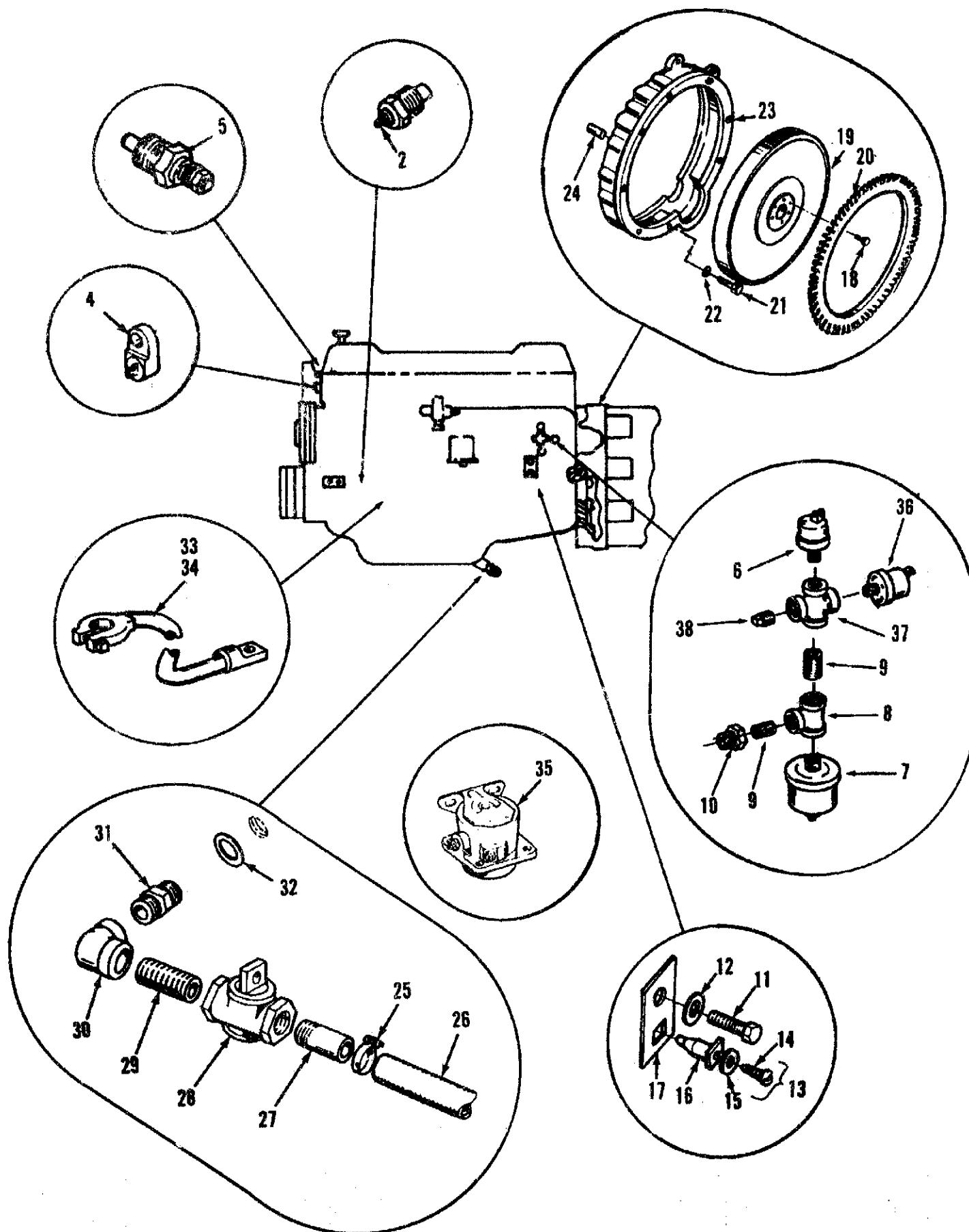


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Belt, Drive	14	850-0055	1	Washer, Lock - Spring (7/16")
	511-0074	1	Specs R,S	15	862-0004	1	Nut, Lock (M10)
	511-0175	2	Begin Spec T, Begin Spec A		870-2056	1	Spec R
2			Screw, Cap - Hex Head	16	526-0100	1	Begin Spec S, Begin Spec A
	718-1037	1	Spec R	17	191-0571	1	Washer, Flat (1/2")
	718-1040	1	Spec S		191-2034	1	Spacer, Sleeve
	718-1039	1	Begin Spec T, Begin Spec A	18	191-0716	1	Spec R
3	850-2008	2	Washer, Lock - Spring (M8)	19	191-0578	1	Begin Spec S, Begin Spec A
4	526-2106	1	Washer, Flat (M8)	20	191-1981	1	Spacer, Sleeve (2-3/4"LG)
5	191-0725	1	Guard, Belt	21			Shield, Heat
6			Nut, Hex				Fan (Begin Spec S, Begin Spec A
	191-0941	1	Specs R (5/8"-18)				Bracket, Mounting -
	870-2161	1	Begin Spec S, Begin Spec A (M16)		191-1410	1	Alternator
7			Washer, Lock		191-2061	1	Spec R
	850-0070	1	Specs R (5/8")	22	860-2006	2	Begin Spec S, Begin Spec A
	851-0039	1	Begin Spec S, Begin Spec A (M16)	23	850-2005	2	(M5) (Begin Spec S, Begin Spec A
8			Pulley, Alternator		526-2106	1	Washer
	191-0623	1	Single Groove - Spec R				Lock - Begin Spec S, Begin Spec A (M5)
	191-2032	1	Single Groove - Spec S				Flat - Begin Spec T (#8)
	191-2035	1	Double Groove - Begin Spec T, Begin Spec A				
9	515-0093	1	Key, Woodruff (#5)				
10	191-1411	3	Bolt, Hex Lock (3/8-16 x .75")				
11	860-2008	1	Nut, Hex (M8) Begin Spec S, Begin Spec A				
12			Alternator - 12 VDC				
	191-1983-01	1	#Begin Spec S, Begin Spec A Does Not Include Fan)				
	191-1872	1	*Spec R				
			Screw, Cap - Hex Head				
	800-0084	1	Spec R				
	800-2101	1	Begin Spec S, Begin Spec A				
							# - For replacement parts, contact Bosch. The Alternator is a Bosch 0 120 488 205.

\* - For replacement parts, contact the Distribution Division of Prestolite Electric, Inc., Arlington Heights, IL 60005; and provide the model number of alternator.

# - For replacement parts, contact Bosch. The Alternator is a Bosch 0 120 488 205.

Miscellaneous Engine Parts - Right Side

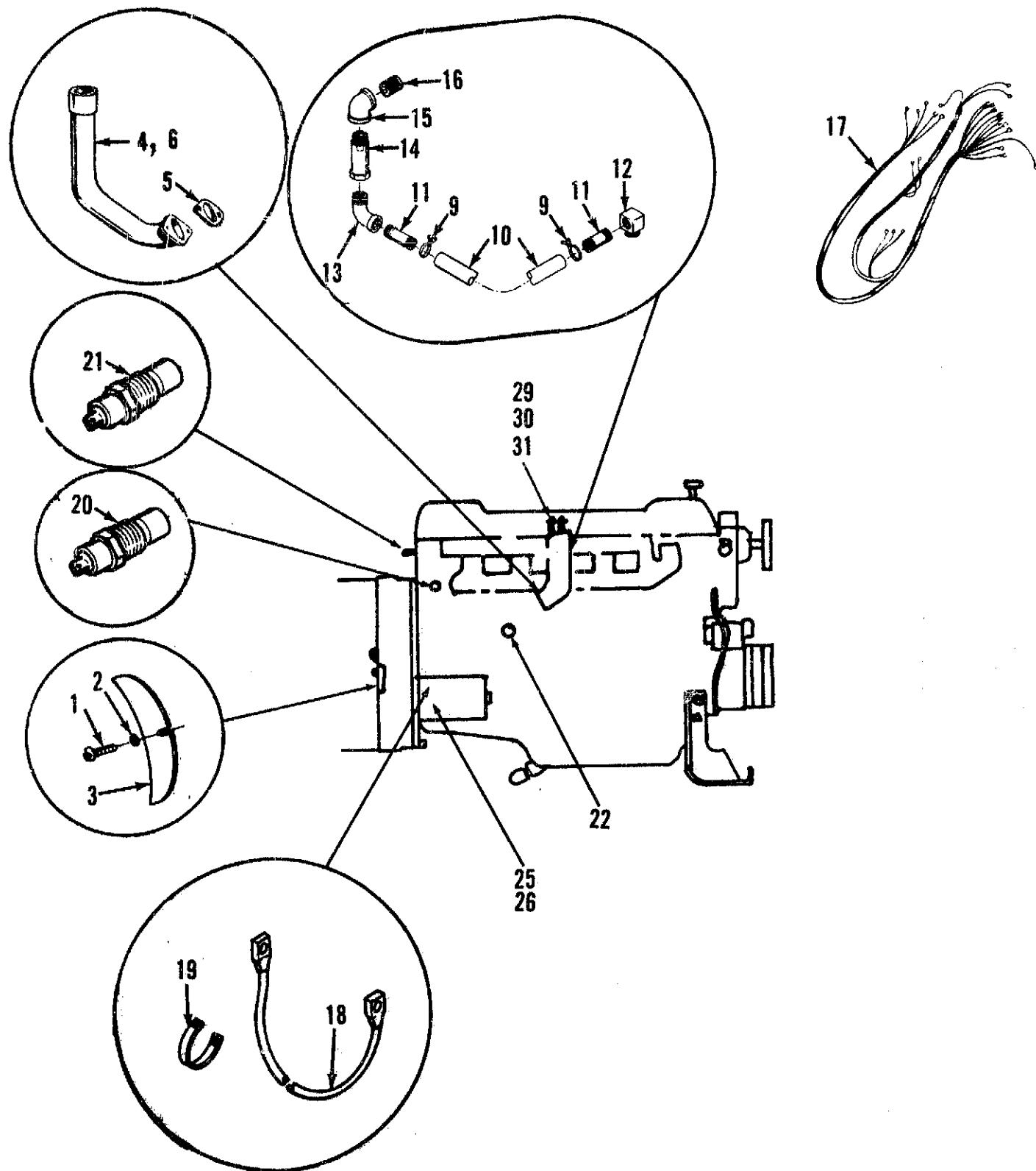


## Miscellaneous Engine Parts - Right Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION	
2			Sender, Temperature - Oil E4		149-2304	1	Pump, Fuel (Ford Part Number D2TE-9350-RA) (Not Illustrated)	
193-0353	1	1	Begin Spec P		102-1330	1	Pan, Oil - Begin Spec R (Not Illustrated)	
193-0249	1	1	Spec J Thru R	21	800-0071	6	Screw, Cap - Hex Head 7/16-14 x 1"	
193-0188	1	1	Spec C Thru H		800-0073	2	7/16-14 x 1-1/2" - Begin Spec T	
4	309-0269	1	Switch, Temperature - Engine SS	22	850-0055	6	Washer, Lock - Spring (7/16")	
800-0051	1	1	Screw, Cap - Hex Head (3/8-16 x 1-1/4")	23	231-0148	1	Adapter, Generator	
850-0050	1	1	Washer, Lock - Spring (3/8")	24	516-0167	1	Pin, Alignment	
526-0029	1	1	Washer, Flat (3/8")	25	503-0131	1	Clamp, Hose	
5			Sender, Temperature - Water E2	26	503-0891	1	Hose, Rubber	
193-0318	1	1	Spec J Thru R - Begin Spec T	27	505-0135	1	Nipple, Pipe - Half (3/8 NPT x 1-1/2"LG)	
193-0104	1	1	Spec C Thru H	28	504-0030	1	Valve (3/8 NPT)	
6	309-0561-01	1	Switch, Pressure - Oil (Shut-down) 1 Terminal - Normally Closed	29	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1"LG)	
7			Sender, Pressure - Oil E1	30	505-0039	1	Elbow, Pipe - 90 DEG (3/8 NPT)	
193-0244	1	1	Begin Spec J	31	102-0652	1	Adapter, Pipe - Hex	
193-0108	1	1	Spec C Thru H	32	102-0664	1	Gasket, Oil Drain	
8	505-0059	1	Tee, Pipe (1/8 NPT)	33	416-0021	1	Cable, Battery - Positive (20-1/2"LG)	
9	505-0098	2	Nipple, Pipe - Close (1/8 NPT)	34	416-0613	1	Cable, Battery - Negative (10"LG)	
10	505-0007	1	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)		850-0055	1	Screw, Cap - Hex Head (7/16-14 x 3/4")	
11	800-0026	1	Screw, Cap - Hex Head (5/16-18 x 3/4")		850-0055	1	Washer, Lock - Spring (7/16")	
12	856-0008	1	Washer, Lock - EIT (5/16")	35			Washer, Lock - EIT (7/16")	
13	332-1292	1	Board, Terminal (Includes Parts Marked *)	307-1166	1	307-1031	1	Solenoid, Start - 12 VDC K6
14	809-0036	1	*Screw, Round Head (#8 x 7/8")	800-0005	2	800-0005	2	Begin Spec P
15	508-0015	1	*Washer, Insulating (#8)		850-0040	2	Spec C thru N	
16	870-0196	1	*Nut, Insulating (#8)		850-0040	2	Screw, Cap - Hex Head (1/4-20 x 3/4")	
17	332-1281	1	*Plate, Mounting - Terminal	862-0001	2	862-0001	2	Washer, Lock - Spring (1/4")
18	104-0745	6	Bolt, Cap - Hex Head	36	309-0561-05	1	Nut, Hex (1/4-20)	
19	104-0719	1	Flywheel (Includes Ring Gear)	37	505-0059	1	Switch, Pressure - Oil (Pre-LOP)	
20	104-0723	1	Gear, Ring	38	505-0057	1	Cross, Pipe (1/8 NPT)	
							Plug, Pipe (1/8" NPT)	

\* - Parts included in Terminal Board.

Miscellaneous Engine Parts - Left Side



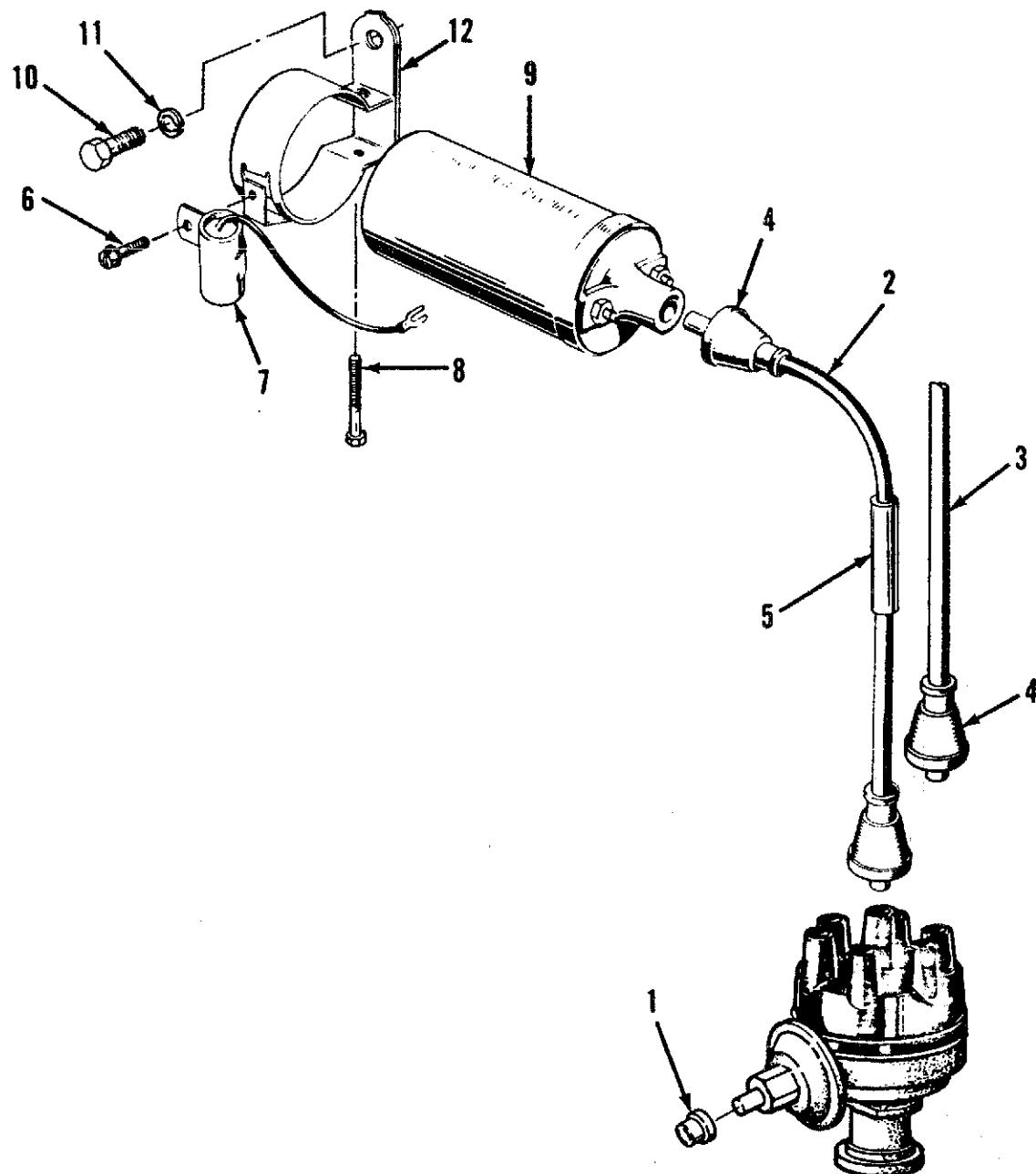
## Miscellaneous Engine Parts - Left Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION	
1	812-0077	1	Screw, Machine - Round Head (#8-32 x 3/8")	18	336-3064	1	Cable, Electrical	
2	850-0025	1	Washer, Lock - Spring (#8)		800-0004	1	Screw, Cap - Hex Head (1/4-20 x 3/4")	
3	191-0773	1	Cover, Starter		850-0040	1	Washer, Lock - Spring (1/4")	
4	155-1107	1	Tube, Exhaust Spec C Thru M		526-0214	1	Washer, Flat (1/4")	
	870-0203	2	Nut, Hex (7/16-20)	19	416-0096	3	Clamp, Cable - Battery	
	520-0404	2	Stud (7/16-20 x 7/16-14 x 1-11/16"LG)	20			Switch, Thermostatic - Water S2 (Shutdown)	
5	155-0923	1	Gasket Spec C Thru M		309-0312	1	Begin Spec J	
6	155-1993	1	Tube, Exhaust - Begin Spec N		309-0179	1	Spec C Thru H	
9	503-0614	2	Clamp, Hose	21	309-0178	1	Switch, Thermostatic - Water S7 (Pre-Alarm)	
10	503-0890	1	Hose, Rubber	22	504-0003	1	Cock, Drain	
11	505-0302	2	Nipple, Pipe - Half (1/4 NPT x 1-1/2"LG)		25	191-2117	1	Starter
12	123-1044	1	Adapter, Breather	26	191-1407	2	Bolt and Washer (3/8 x 1-3/8")	
13	505-0011	1	Elbow, Pipe - Street, 90 DEG (1/4 NPT)		29	520-0311	2	Stud, Steel
14	123-0910	1	Valve - Breather		30	854-0020	2	Washer, Lock - EIT (3/8")
15	505-0038	1	Elbow, Pipe - 90 DEG (1/4 NPT)		31	104-0091	2	Nut, Hex (3/8-24)
16	505-0071	1	Nipple, Pipe (1/4 NPT x 2"LG)					
17			Harness, Wiring					
	338-0533	1	Engine to DC Control with 5 Fault Lights					
	338-0628	1	Spec C Thru N					
	338-1962	1	Spec P					
	338-2675	1	Begin Spec S (Use with Bosch Alternator)					
	166-0727	1	Spec R					



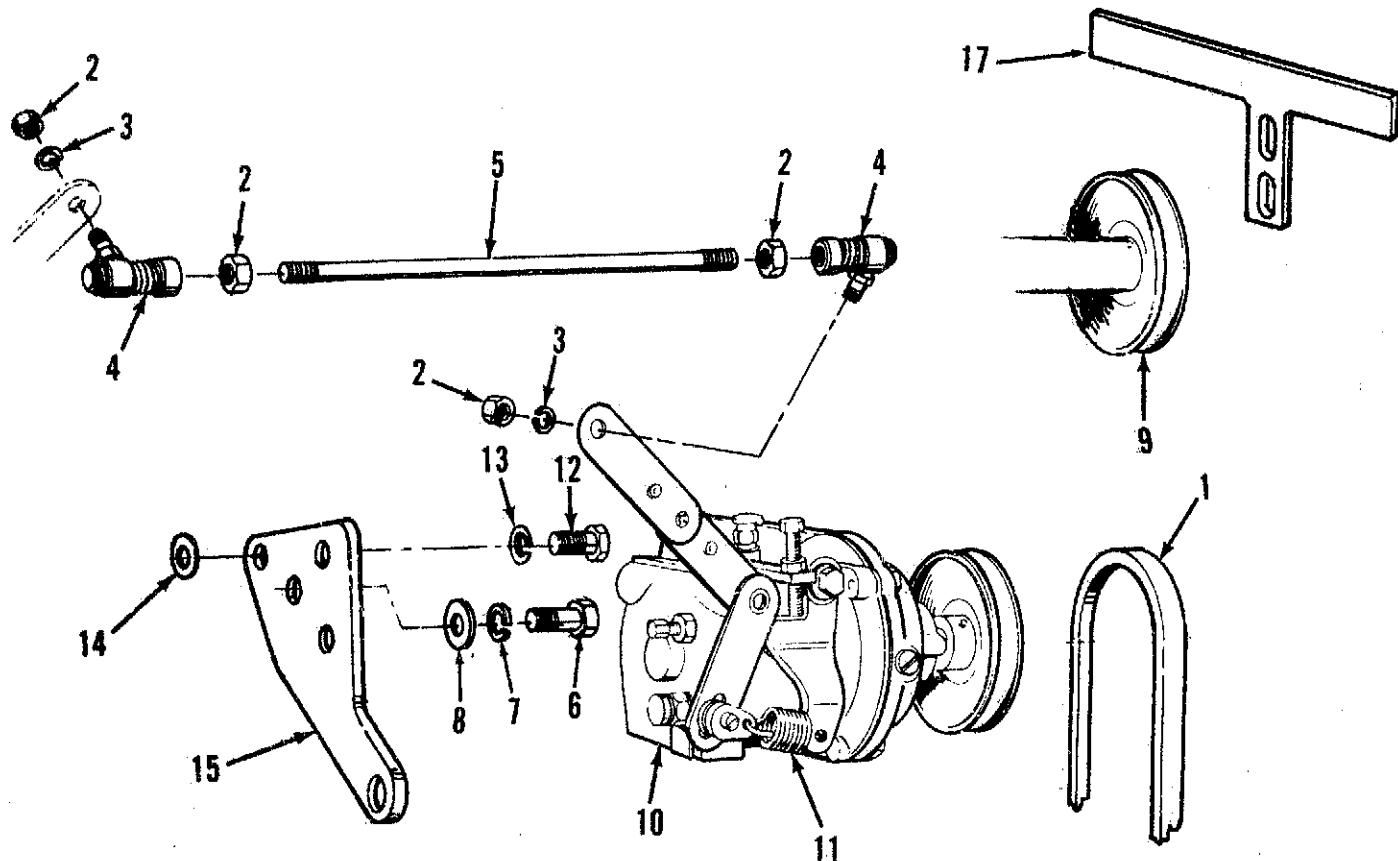
**Cummins  
Power  
Generation**

**Ignition System - Spec C Through N**



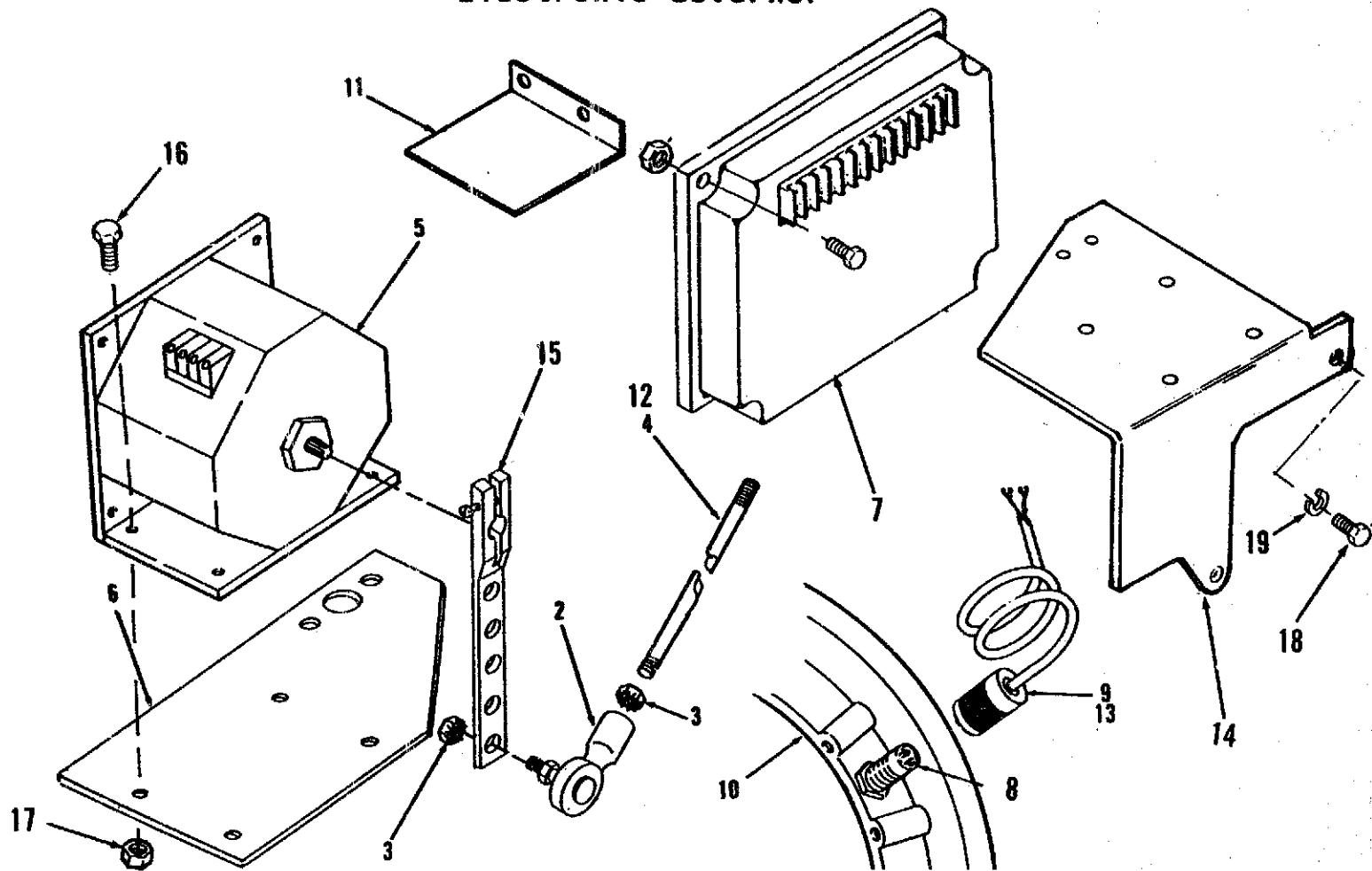
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	517-0090	1	Plug, Distributor Vacuum Advance	6	815-0504	1	Screw, Tapping - Hex Washer Head (#6 x 3/8")
2	167-1528	1	Cable, Coil to Distributor	7	312-0058	1	Capacitor
3	167-1532	1	Set, Cable - Spark Plug (Includes As Follows)	8	166-0286	1	Screw, Special - Coil Bracket
	167-1525	1	Cylinder #1	9	166-0268	1	Coil, Ignition
	167-1526	1	Cylinder #2		166-0278	1	Six Volt
	167-1527	1	Cylinder #3			1	Twelve Volt
	167-1529	1	Cylinder #4	10	800-0026	1	Screw, Cap - Hex Head (5/17-18 x 3/4")
	167-1530	1	Cylinder #5	11	850-0045	1	Washer, Lock - Spring (5/16")
	167-1531	1	Cylinder #6	12	160-1045	1	Bracket, Mounting
4	160-0558	8	Nipple, Cable				
5	314-0006	1	Suppressor, Ignition				

## Mechanical Governor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	511-0077	1	Belt, Drive Dry Manifold Set - .38" Width (Used Thru October 1987)	7	850-0050	3	Washer, Lock - Spring (3/8")
	511-0164	1	Dry Manifold - 3/8" Width ~ 28.5 " Long (Used Begin November 1987)	8	526-0030	3	Washer, Flat (3/8")
	511-0078	1	Wet Manifold Set - 13/32" Width	9	512-0051	1	Pulley, Water Pump
	511-0179	1	V-Belt - 1/2" Width	10	130-3930	1	Governor Drive - Spec C-R
	511-0174	1	V-Belt (Begin Spec T)	11	151-0312	1	Water Pump - 3-Groove Begin Spec S
2	115-0025	4	Nut, Hex (1/4-28)	12	150-2495	1	Governor (Includes Pulley) Spec C-R
	115-0025	3	Dry Manifold Set	13	151-0579	1	Begin Spec T - 35EK-Spec A
3	850-0040	2	Wet Manifold Set	14	151-0312	1	Spring, Governor (50 Hertz Sets Only )
	850-0040	1	Washer, Lock - Spring (1/4")	15	850-0010	1	Screw, Cap - Hex Head (5/16-24 x 1-1/4")
4	150-0638	2	Dry Manifold Set	16	850-0045	1	Washer, Lock - Spring (5/16")
	520-0214	1	Wet Manifold Set	17	526-0115	1	Washer, Flat (5/16")
5	520-0515	1	Joint, Ball	18	150-2249	1	Bracket, Mounting
	520-0515	1	Stud	19	150-2496	1	Used Prior To Spec T
6	801-0050	3	Dry Manifold Set	20	526-0029	1	Begin Spec T
	801-0050	3	Wet Manifold Set	21	130-4271	1	Washer, Flat (3/8")
			Screw, Cap - Hex Head (3/8-24 x 1")				Wet Manifold Set - Spec T
							Guard, Belt - Begin Spec C - EK, Begin Spec V - EM

## Electronic Governor

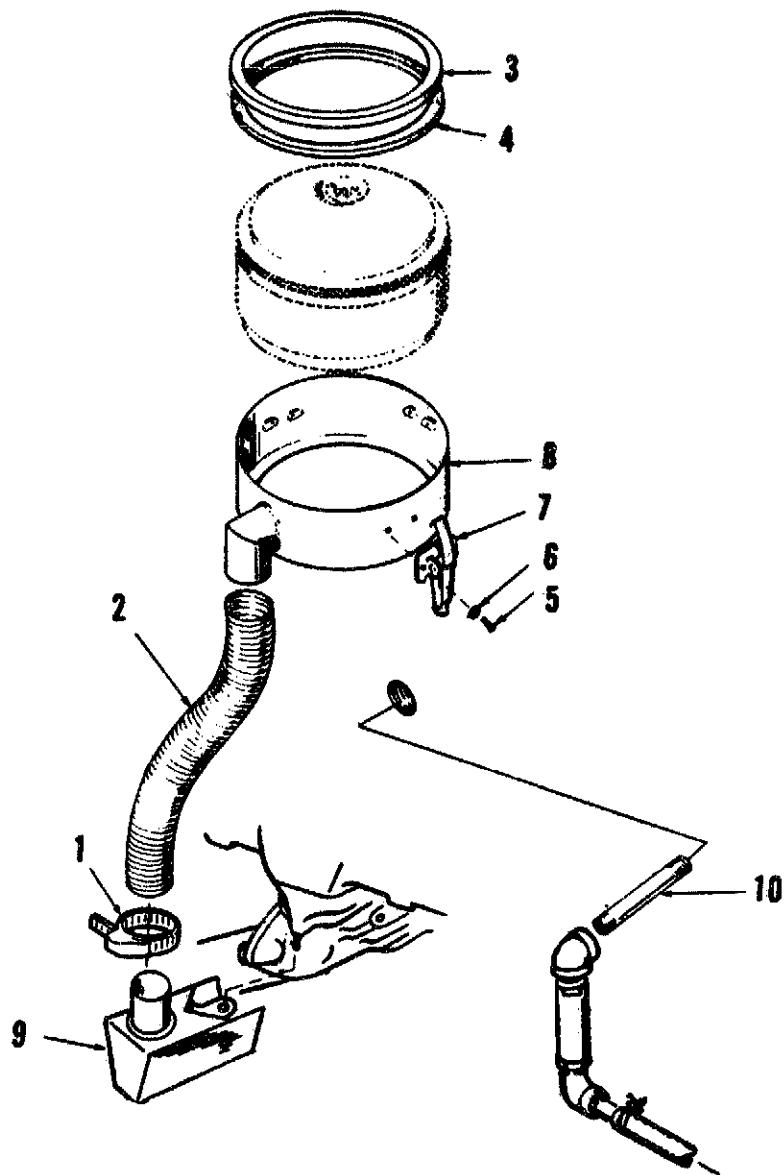


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	151-0596	1	Package, Mounting - Governor Spec C-R (Barber Coleman Part No. DYNK10163)	7	151-0605	1	Controller, Governor (12 VDC)
	151-0707	1	Begin Spec S (Barber Coleman Part No. DYNK10163-1)	151-0624	1	Begin Spec R - 35EK-Spec A	
	151-0710	1	Begin Spec T (Barber Coleman Part No. DYNK10163-2)	813-0102	4	Begin Spec T - 35EK-Spec A	
2	150-0939	2	Joint, Ball Spec C-R	870-0131	4	Screw, Machine - Round Head (#10-32 x 5/8") (Not Illustrated)	
	150-0638	2	Spec S,T 35EK-Spec A (10-32)	813-0102	4	Nut, Hex with ET Lock Washer (#10-32) (Not Illustrated)	
3	870-0131	4	Nut, Hex with ET Lock Washer Spec C-R (#10-32)	8	151-0411	1	Screw, Machine - Round Head (#10-32 x .625") (Not Illustrated)
	115-0025	4	Spec S,T 35EK-Spec A (Tappet, 1/4-28 Hard)	151-0433	1	Pickup, Magnetic 4" Thread Length	
4	150-1923	1	Stud Spec C-R	9	338-1765-01	1	2-1/2" Thread Length
	520-0214	1	Spec S	10	231-0157	1	Harness, Wiring
5	151-0566	1	Actuator, Governor (12 VDC)	11	155-1984	1	Adapter, Generator
	151-0625	1	Begin Spec R,S	12	152-0329	1	Shield, Heat (Used with Dry Manifold Only)
	800-0031	4	Begin Spec T - 35EK-Spec A	13	152-0341	1	Rod, Throttle - Begin Spec T - 35EK-Spec A (Dry Manifold)
			Screw, Cap - Hex Head (5/16-18 x 1-1/2") (Mounts Gov. Mtg. Pkg. to Actuator) (Not Illustrated)	14	150-2497	1	Wet Manifold
			Washer, Lock - Spring (5/16") (Not Illustrated)	15	150-2145	1	Cable, Magnetic Pickup - Begin Spec T - 35EK-Spec A
	850-0045	4	Nut, Hex (5/16-18) (Not Illustrated)	16	800-0008	4	Bracket, Governor
	870-0048	4	Washer, Lock Head (1/4-20 x 1.25")	17	870-0212	4	Lever, Governor Actuator
6		1	Screw, Cap - Hex Head (3/8-16 x 1.25")	18	800-0051	2	Screw, Lock Head (1/4-20)
			*Bracket, Mounting (Wet Manifold)	19	850-0051	2	Screw, Cap - Hex Head (3/8-16 x 1.25")
			Spec C-S	20	800-0052	4	Washer, Lock (3/8")
			Begin Spec T				Screw, Cap - Hex Head (3/8 - 16 x 1.5")
			Begin Spec T (Dry Manifold)				

\* Use on Wet Manifold Installation only; for Bracket used on Dry Manifold, contact Barber-Coleman Co. - order part number DYNK-102.

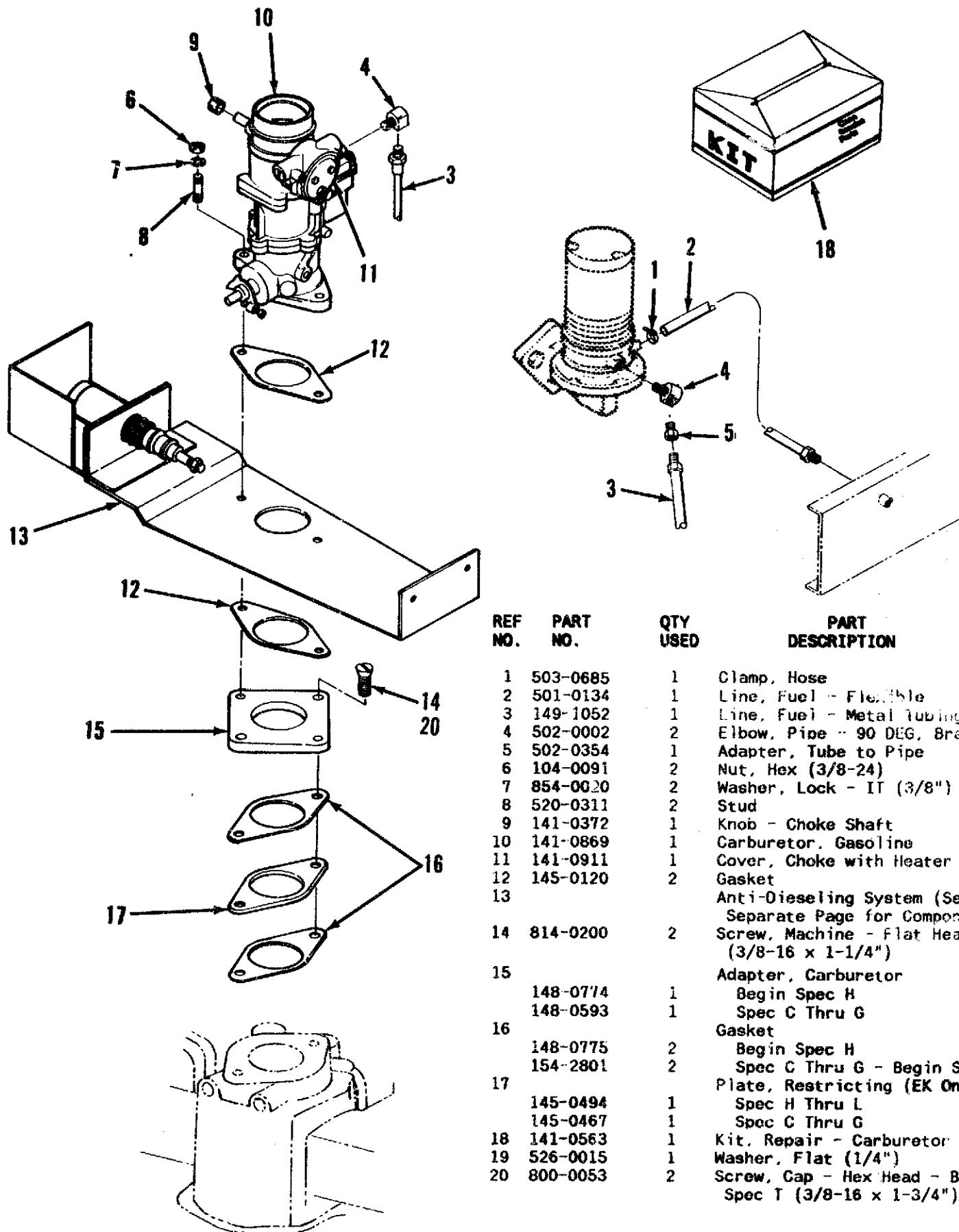
Redistribution or publication of this document by any means, is strictly prohibited.

## Air Heater

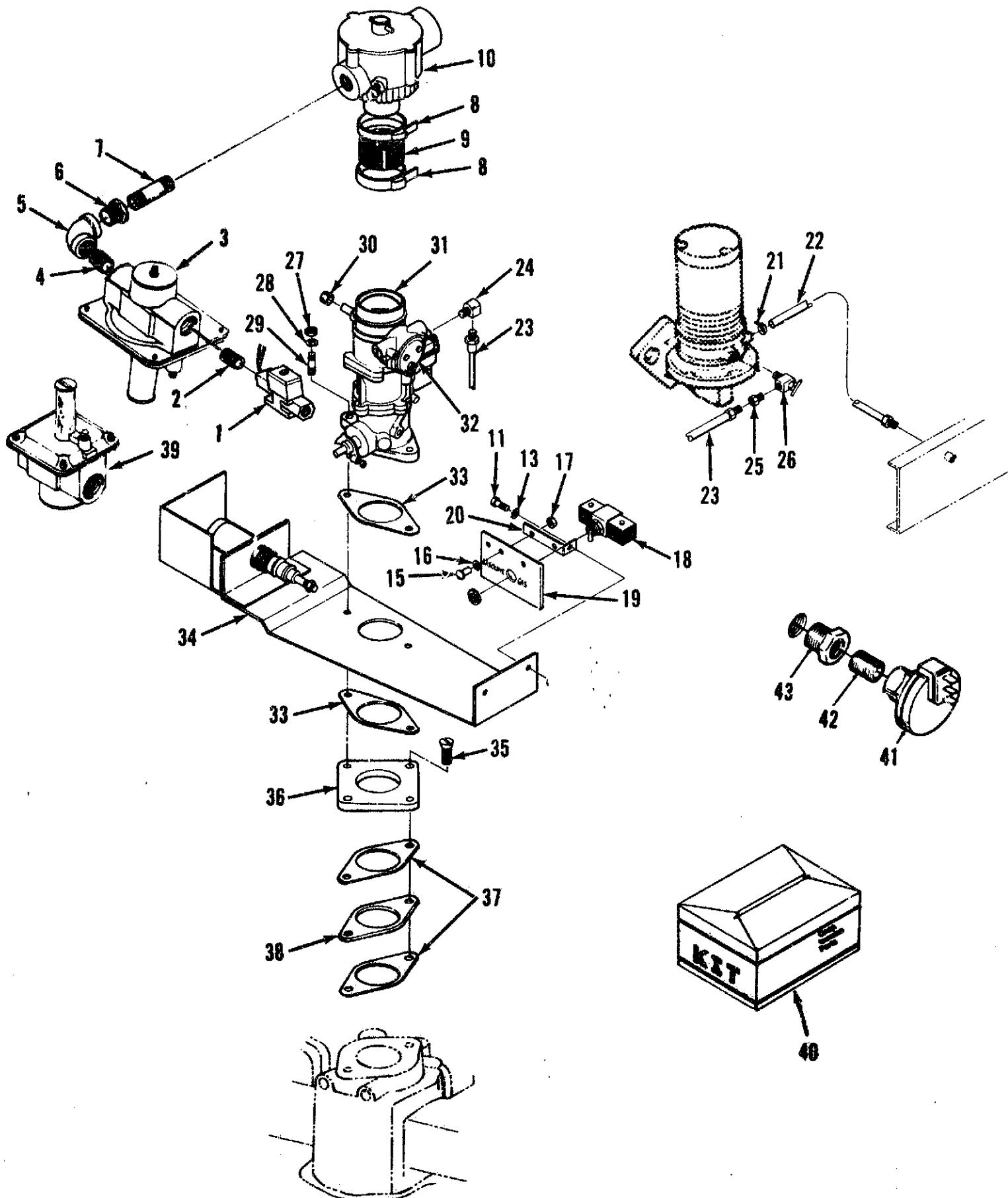


REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	133-0204	1	Heater, Air (Kit)	5	812-0077	6	Screw, Tapping - Round Head (#8-32 x 3/8")
2	503-0365	2	Clamp, Hose	6	850-0025	6	Washer, Lock - Spring (#8)
3	503-0245	1	Hose, Air - Flexible	7	406-0105	3	Fastener
4	133-0202	1	Retainer	8	133-0201	1	Duct, Heater
	4 895-0098	-	Strip, Foam (Bulk) 2 FT Required	9	133-0203	1	Plenum, Heater
				10	505-0217	1	Nipple, Pipe (1/4 NPT x 4-1/2"LG)

## Gasoline Fuel System



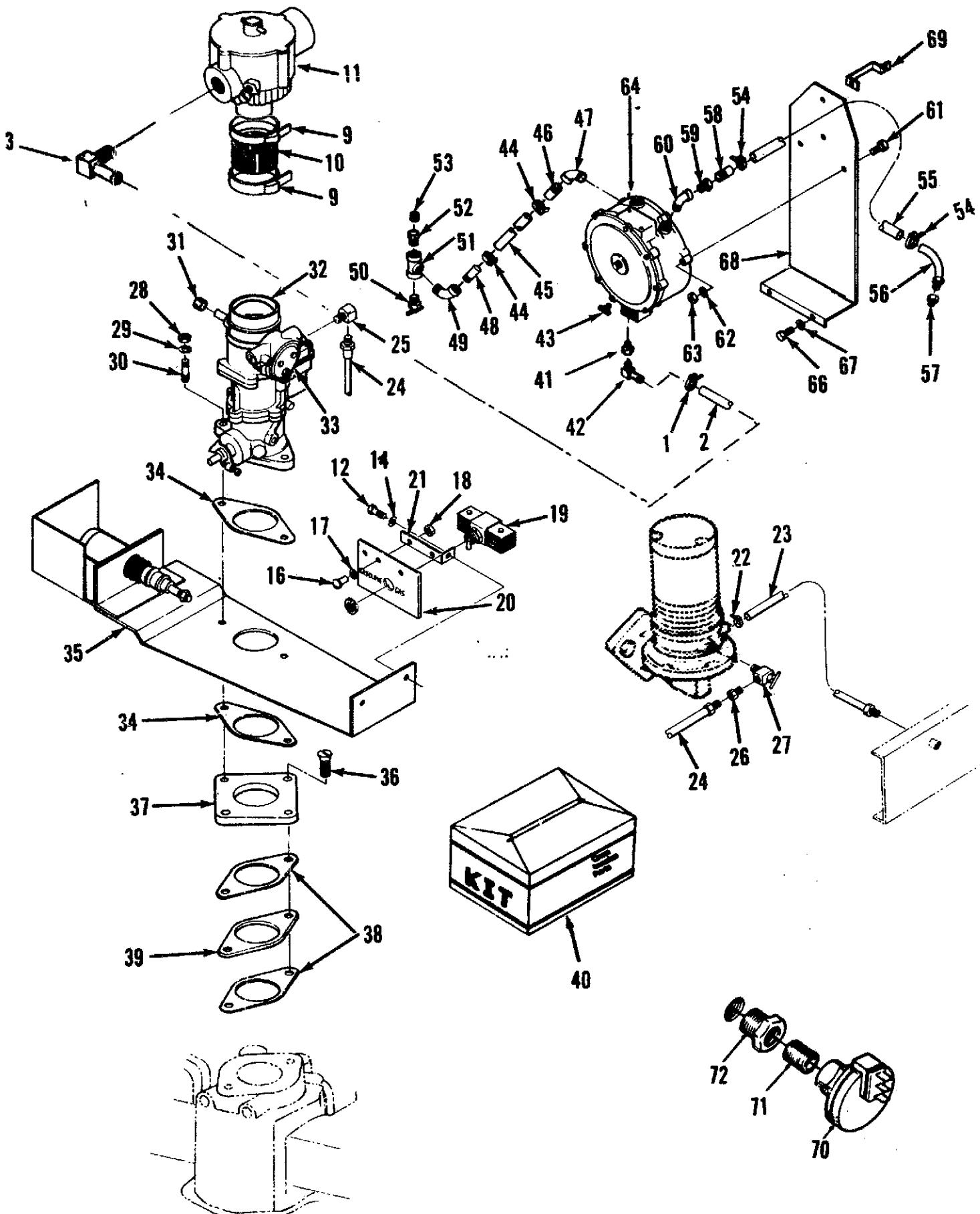
**Gasoline and Liquid Gas Vapor or Natural Gas Fuel System**



## Gasoline and Liquid Gas Vapor or Natural Gas Fuel System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	307-0312	1	Valve, Solenoid - 12 VDC (3/4 NPT)	25	502-0354	1	Adapter, Tube to Pipe
2	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)	26	504-0007	1	Valve - Fuel
3	148-0637	1	Regulator, Pressure - Liquid Gas Vapor (3/4 NPT)	27	104-0091	2	Nut, Hex (3/8-24)
4	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)	28	854-0020	2	Washer, Lock - IT (3/8")
5	505-0132	1	Elbow, Pipe - 90 DEG (3/4 NPT)	29	520-0311	2	Stud
6	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	30	141-0372	1	Knob - Choke Shaft
7	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	31	141-0869	1	Carburetor, Gasoline
8	503-0999	2	Clamp, T Bolt	32	141-0911	1	Cover, Choke with Heater
9	503-0542	1	Hose	33	145-0120	2	Gasket
10	148-0691	1	Mixer - Gas Vapor	34			Anti-Dieseling System (See Separate Page for Components)
11	800-0025	1	Screw, Cap - Hex Head (5/16-18 x 5/8")	35	814-0200	2	Screw, Machine - Flat Head (3/8-16 x 1-1/4")
13	850-0045	1	Washer, Lock - Spring (5/16")	36	148-0774	1	Adapter, Carburetor
15	813-0098	2	Screw, Machine - Round Head (#10-32 x 3/8")	37	148-0593	1	Begin Spec H Spec C Thru G
16	850-0030	2	Washer, Lock - Spring (#10)	38	148-0775	2	Gasket
17	870-0053	2	Nut, Hex (#10-32)	39	154-2801	2	Begin Spec H Spec C Thru G
18	308-0005	1	Switch, Toggle	40	145-0494	1	Plate, Restricting (EK Only)
19	308-0150	1	Plate, Mounting	41	145-0467	1	Spec H Thru L Spec C Thru G
20	306-0155	1	Bracket, Mounting	42	148-0597	1	Regulator, Pressure - Nat Gas (3/4 NPT)
21	503-0685	1	Clamp, Hose	43	141-0563	1	Kit, Repair - Carburetor
22	501-0134	1	Line, Fuel - Flexible	44	148-0367	1	Switch, Control - Vacuum (12 VDC)
23	149-1052	1	Line, Fuel - Metal Tubing	45	505-0098	1	Nipple, Pipe - Close
24	502-0002	1	Elbow, Pipe - 90 DEG, Brass	46	505-0007	1	Bushing, Reducer - Hex
				47	503-1142	2	Clamp, Hose

## Gasoline and Liquid Gas Fuel System

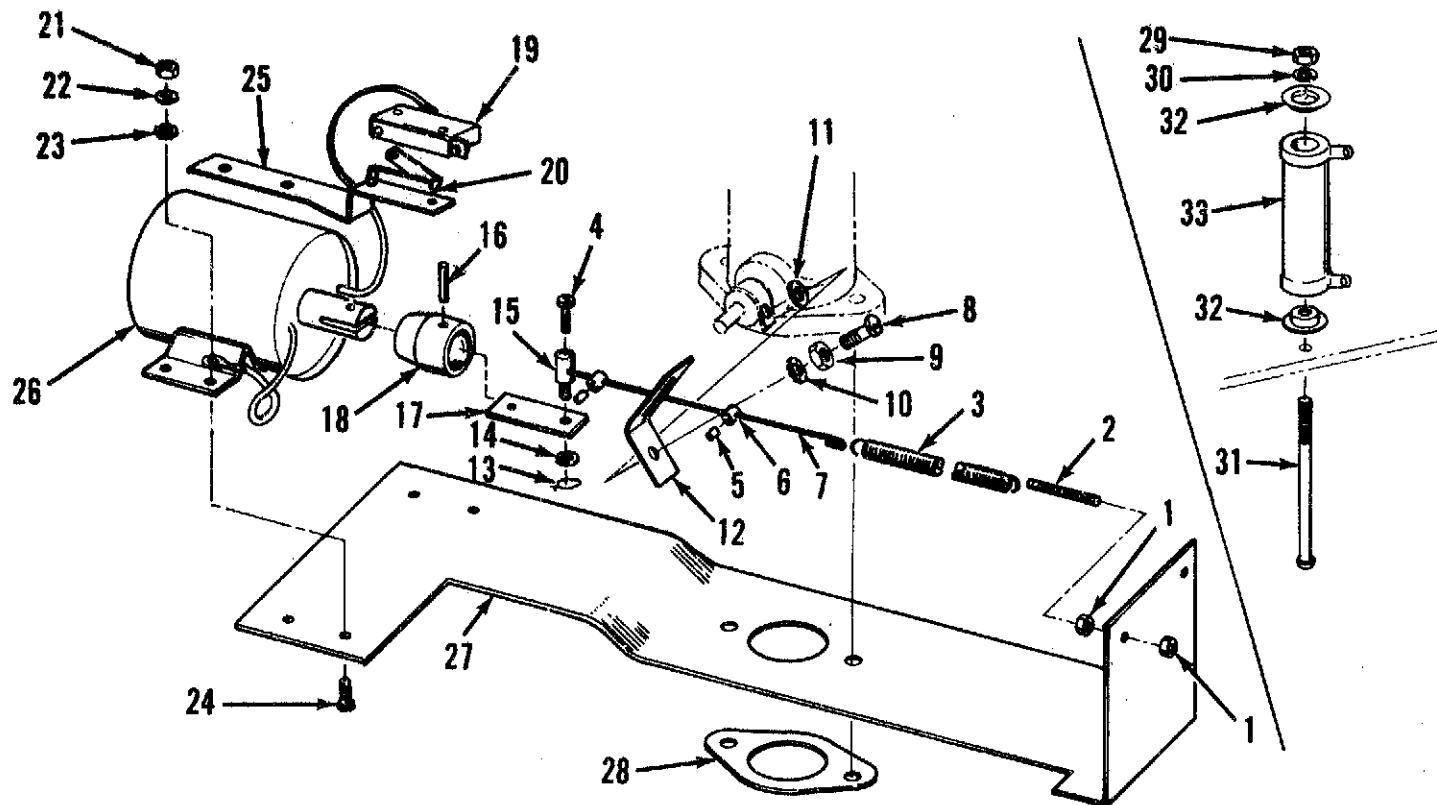


## Gasoline and Liquid Gas Fuel System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Clamp, Hose	39			Plate, Restricting (EK Only)
	503-1137	2	Spec C-S (Min 5/16" ~ Max #16)	145-0494	1		Spec H Thru L
	503-0398	2	Begin Spec T (Min 13/16" ~ Max 1-3/4")	145-0467	1		Spec C Thru G
2			Hose	40	141-0563	1	Kit, Repair - Carburetor
	503-1103	1	22.5" Long x 1" ID ~ 45EM ~ Begin Spec S	41	505-0022	1	Bushing, Reducer - Hex (1 NPT x 1/2 NPT)
	503-1691	1	34" x 3/4" ID	42	502-1030	1	Connector, Hose (90°) (1/2x3/4)
3	502-1030	1	Connector, Hose	43	504-0005	1	Cock, Drain (1/8 NPT)
4	307-0312	1	Valve, Solenoid ~ 12 VDC (3/4 NPT)	44	503-0183	2	Clamp, Hose
9	503-0999	2	Clamp, T Bolt	45	503-0832	2	Hose, Rubber ~ 12"
10	503-0542	1	Hose	46	505-0135	2	Nipple, Pipe - Half (3/8 NPT x 1-1/2"LG)
11	148-0691	1	Mixer ~ Gas Vapor	47	505-0039	2	Elbow, Pipe - Street, 90 DEG (3/8 NPT)
12	800-0025	1	Screw, Cap - Hex Head (5/16-18 x 5/8")	48	505-0101	1	Nipple, Pipe (3/8 NPT x 6"LG)
14	850-0045	1	Washer, Lock - Spring (5/16")	49	505-0039	1	Elbow, Pipe - Street, 90 DEG (3/8 NPT)
16	813-0098	2	Screw, Machine - Round Head (#10-32 x 3/8")	50	504-0028	1	Cock, Drain (3/8 NPT)
17	850-0030	2	Washer, Lock - Spring (#10)	51	505-0060	1	Tee, Pipe (3/8 NPT)
18	870-0053	2	Nut, Hex (#10-32)	52	505-0017	1	Bushing, Reducer - Hex (3/8 NPT x 1/4 NPT)
19	308-0005	1	Switch, Toggle	53	505-0099	1	Nipple, Pipe - Close (1/4 NPT x 7/8 "LG)
20	308-0150	1	Plate, Mounting	54	503-0183	2	Clamp, Hose
21	306-0155	1	Bracket, Mounting	55	148-0826	1	Vaporizer
22	503-0685	1	Clamp, Hose	56	130-0678	1	Line, Water
23	501-0134	1	Line, Fuel - Flexible	57	502-0103	1	Adapter, Tube to Pipe
24	149-1052	1	Line, Fuel - Metal Tubing	58	505-0185	1	Nipple, Half
25	502-0002	1	Elbow, Pipe ~ 90 DEG, Brass	59	505-0101	3	Nipple, Close (3/8")
26	502-0354	1	Adapter, Tube to Pipe	60	505-0119	1	Elbow, Pipe - Street, 45 DFG (3/8 NPT)
27	504-0007	1	Valve, Shutoff - Fuel	61	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2")
28	104-0091	2	Nut, Hex (3/8-24)	62	850-0040	2	Washer, Lock - Spring (1/4")
29	854-0020	2	Washer, Lock - IT (3/8")	63	862-0001	2	Nut, Hex (1/4-20)
30	520-0311	2	Stud	64	148-0625	1	Converter - Liquid Gas
31	141-0372	1	Knob - Choke Shaft	65	800-0069		Screw, Cap - Hex Head (7/16-14 x 3/4")
32	141-0869	1	Carburetor, Gasoline	66	800-0071	1	Screw, Cap - Hex Head (7/16-14 x 1")
33	141-0911	1	Cover, Choke with Heater	67	850-0055	2	Washer, Lock - Spring (7/16")
34	145-0120	2	Gasket	68	148-0603	1	Bracket, Mounting
35			Anti-Dieseling System (See Separate Page for Components)	69	148-0604	1	Brace, Mounting
36	814-0200	2	Screw, Machine - Flat Head (3/8-16 x 1-1/4")	70	148-0367	1	Switch, Control - Vacuum (12VDC)
37			Adapter, Carburetor	71	505-0098	1	Nipple, Pipe - Close
	148-0774	1	Begin Spec H	72	505-0007	1	Bushing, Reducer - Hex
	148-0593	1	Spec C Thru G				
38			Gasket				
	148-0775	2	Begin Spec H				
	154-2801	2	Spec C Thru G				

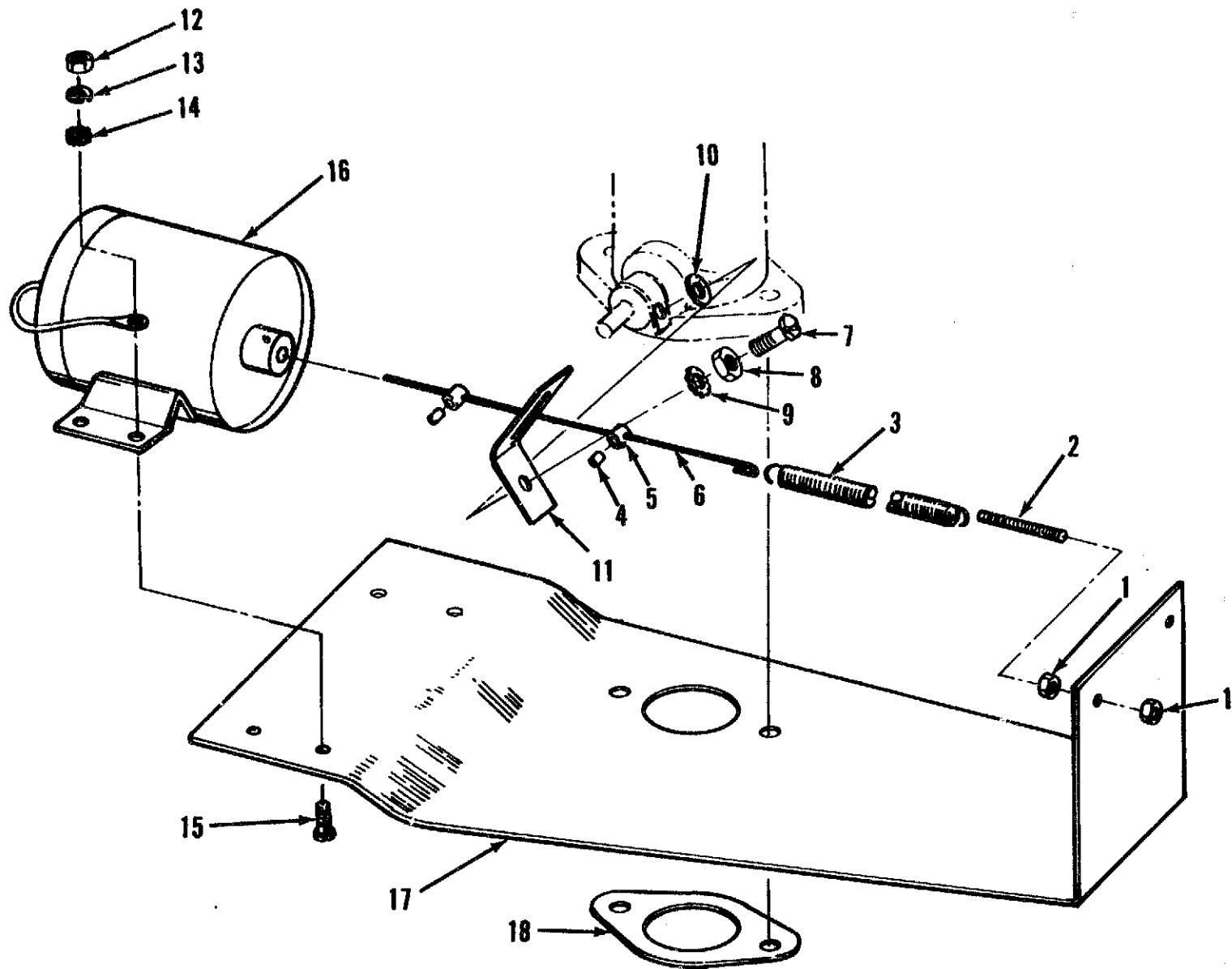


## Anti-Dieseling System - Spec C Only



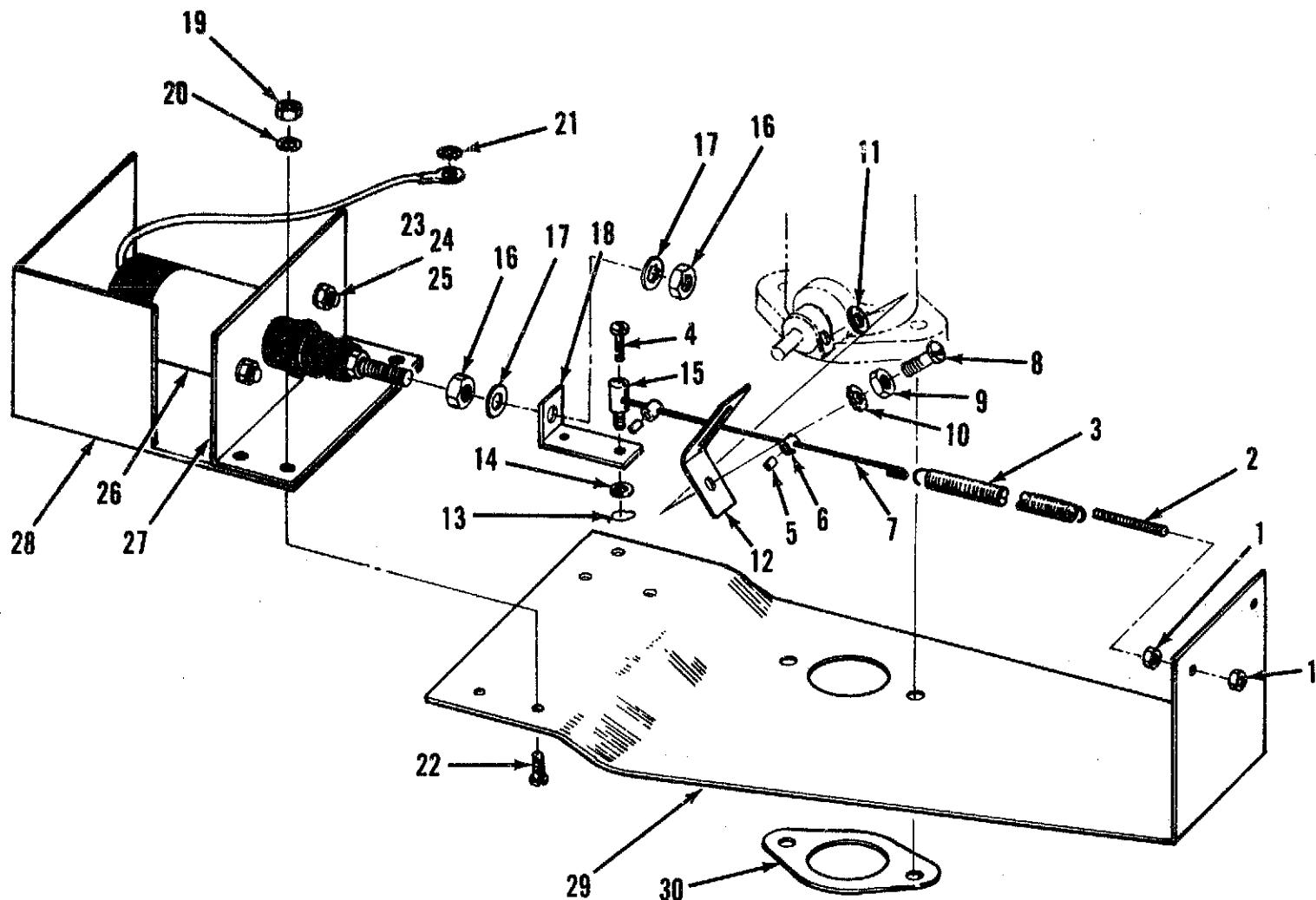
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0053	2	Nut, Hex (#10-32)	17	145-0164	1	Extension - Plunger
2	150-0096	1	Stud	18	309-0132	1	Cam - Switch
3	145-0158	1	Spring	19	309-0155	1	Switch, Micro
4	815-0104	1	Screw, Machine - Fillister Head (#8-32 x 5/16")	20	309-0133	1	Actuator, Switch
5	803-0002	2	Screw, Set - Socket Drive (#8-32 x 3/16")	21	860-0008	4	Nut, Hex (#8-32)
6	145-0165	2	Stop	22	850-0025	4	Washer, Lock - Spring (#8)
7	145-0166	1	Link	23	856-0002	1	Washer, Lock - ET (#8)
8	815-0134	1	Screw, Machine - Fillister Head (#8-36 x 3/4")	24	812-0079	4	Screw, Machine - Round Head (#8-32 x 1/2")
9	870-0055	1	Nut, Hex (#8-36)	25	309-0131	1	Bracket, Mounting
10	853-0005	1	Washer, Lock - ET (#8)	26	307-0259	1	Solenoid - 12 VDC
11	526-0049	1	Washer, Flat (#8)	27	145-0182	1	Bracket, Mounting
12	145-0163	1	Arm	28	154-2801	2	Gasket
13	516-0059	1	Pin, Roll	29	870-0053	1	Nut, Hex (#10-32)
14	526-0006	2	Washer, Flat (#12)	30	850-0030	1	Washer, Lock - Spring (#10)
15	152-0155	1	Swivel	31	813-0118	1	Screw, Machine - Round Head (#10-32 x 4-1/2")
16	516-0086	1	Pin, Roll	32	304-0015	2	Washer, Centering
				33	304-0045	1	Resistor

## Anti-Dieseling System - Spec D and E



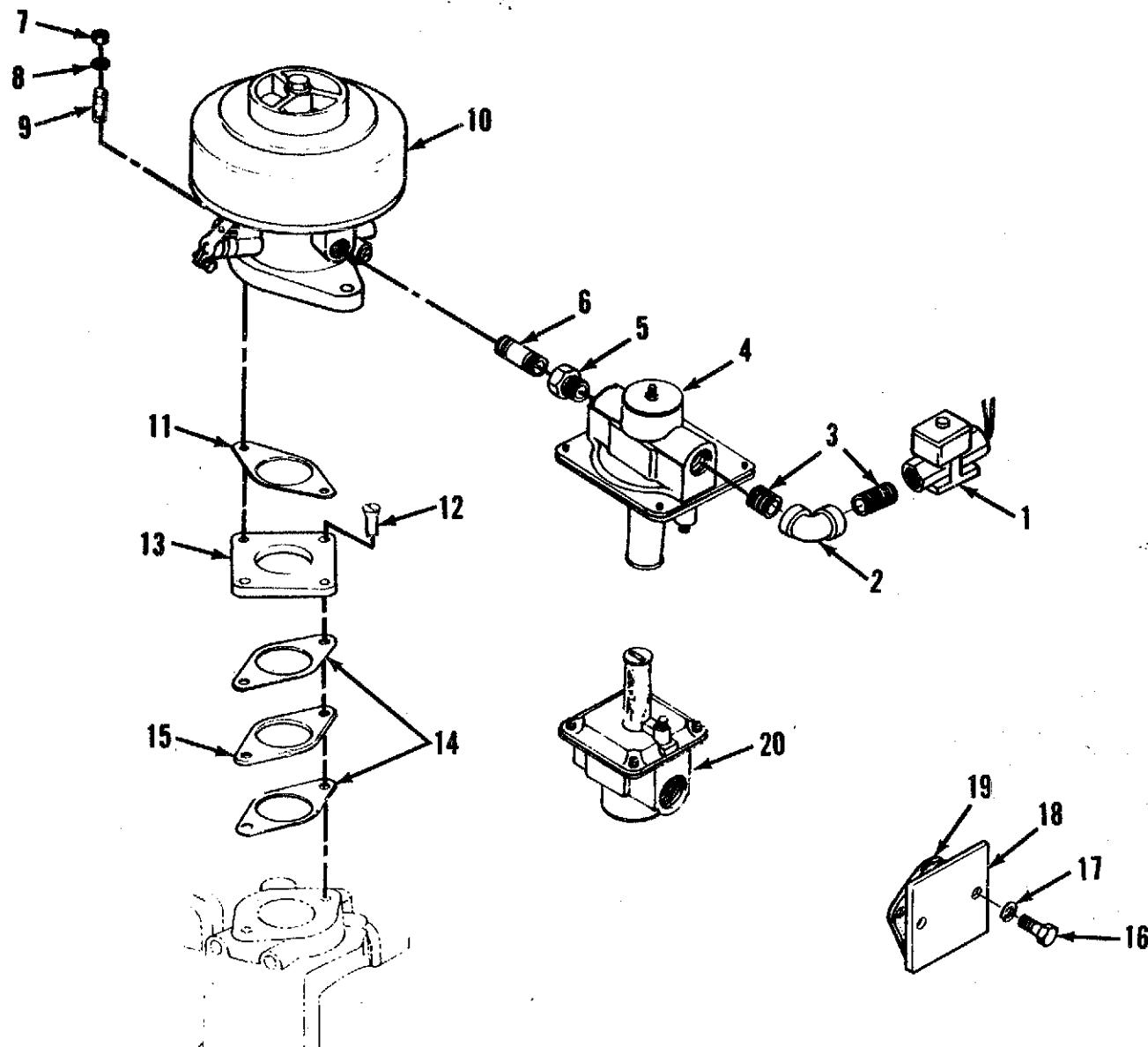
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0053	2	Nut. Hex (#10-32)	10	526-0048	1	Washer. Flat (#8)
2	150-0090	1	Stud	11	145-0163	1	Arm
3	145-0158	1	Spring	12	860-0008	4	Nut. Hex (#8-32)
4	803-0002	2	Screw. Set - Socket Drive (#8-32 x 3/16")	13	850-0025	4	Washer. Lock - Spring (#8)
5	145-0165	2	Stop	14	856-0002	1	Washer. Lock - EIT (#8)
6	145-0166	1	Link	15	812-0079	4	Screw. Machine - Round Head (#8-32 x 1/2")
7	815-0134	1	Screw. Machine - Fillister Head (#8-36 x 3/4")	16	307-1093	1	Solenoid - 12 VDC
8	870-0055	1	Nut. Hex (#8-36)	17	145-0422	1	Bracket. Mounting
9	853-0005	1	Washer. Lock - ET (#8)	18	154-2801	2	Gasket

## Anti-Dieseling System - Begin Spec F



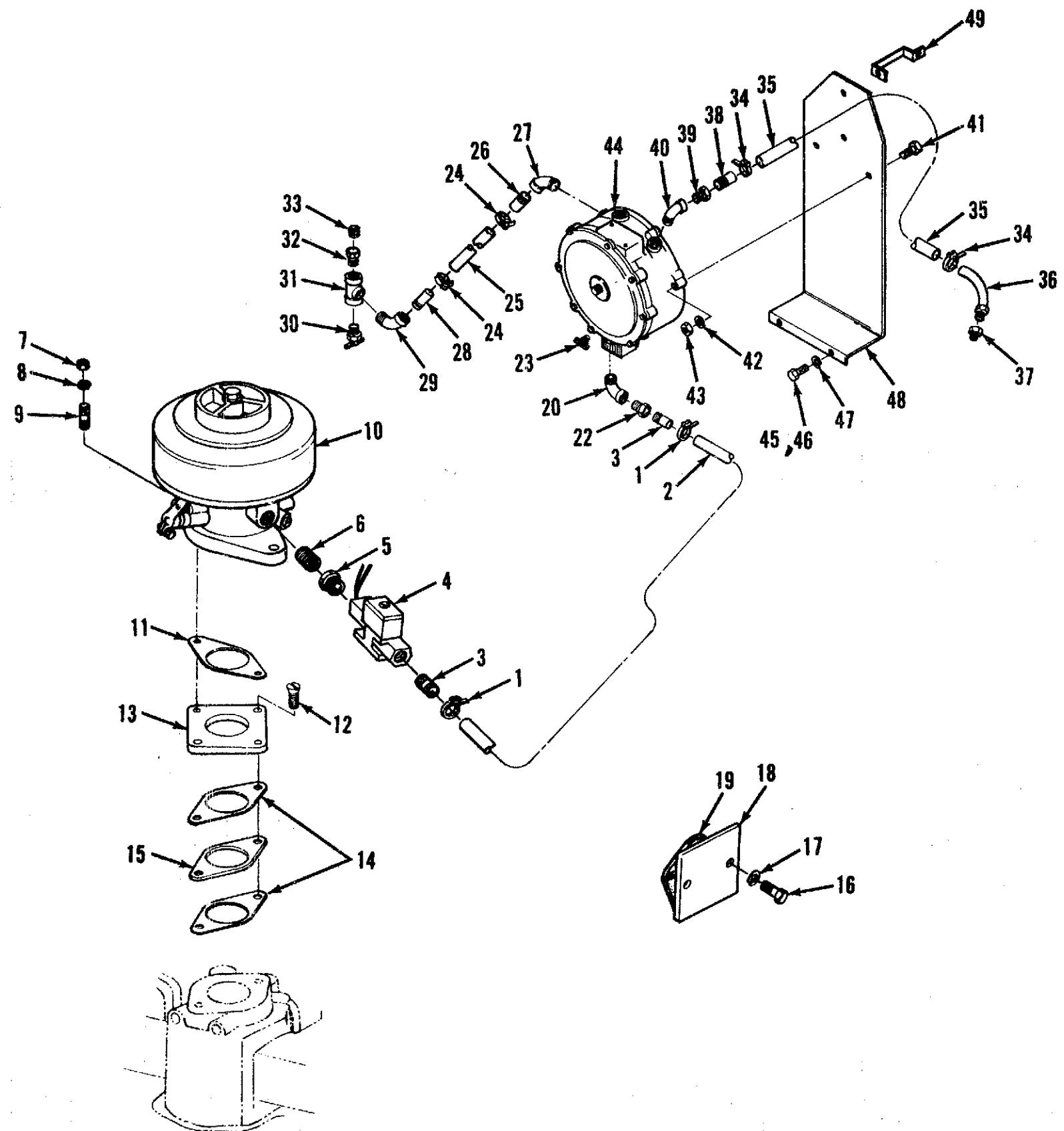
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0053	2	Nut, Hex (#10-32)	16	115-0025	2	Nut, Hex (1/4-28)
2	150-0096	1	Stud	17	850-0040	2	Washer, Lock - Spring (1/4")
3	145-0158	1	Spring	18	307-1330	1	Extension, Plunger
4	815-0104	1	Screw, Machine - Fillister Head (#8-32 x 5/16")	19	860-0008	4	Nut, Hex (#8-32)
5	803-0002	2	Screw, Set - Socket Drive (#8-32 x 3/16")	20	850-0025	4	Washer, Lock - Spring (#8)
6	145-0165	2	Stop	21	856-0002	1	Washer, Lock - EIT (#8)
7	145-0421	1	Link	22	812-0079	4	Screw, Machine - Round Head (#8-32 x 1/2")
8	815-0134	1	Screw, Machine - Fillister Head (#8-36 x 3/4")	23	862-0001	2	Nut, Hex (1/4-20)
9	870-0055	1	Nut, Hex (#8-36)	24	850-0040	2	Washer, lock - Spring (1/4")
10	853-0005	1	Washer, Lock - ET (#8)	25	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")
11	526-0048	1	Washer, Flat (#8)	26	307-1356	1	Solenoid - 12 VDC
12	145-0163	1	Arm	27	307-1323	1	Bracket, Mounting
13	516-0059	1	Pin, Cotter	28	307-1327	1	Shield, Solenoid
14	526-0006	1	Washer, Flat (#12)	29	145-0422	1	Bracket, Mounting
15	152-0155	1	Swivel	30	154-2801	2	Gasket, Carburetor

## Liquid Gas Vapor or Natural Gas Fuel System



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	307-0312	1	Valve, Solenoid - 12 VDC (3/4 NPT)	14	148-0775	2	Gasket
2	505-0132	1	Elbow, Pipe - 90 DEG (3/4 NPT)	15	154-2801	2	Begin Spec H
3	505-0102	2	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)	15	145-0494	1	Spec C Thru G
4	148-0637	1	Regulator, Pressure - Liquid Gas Vapor (3/4 NPT)	16	145-0467	1	Plate, Restricting (EK Only)
5	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	16	800-0025	2	Spec H Thru L
6	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	17	145-0467	1	Spec C Thru G
7	104-0091	2	Nut, Hex (3/8-24)	17	850-0045	2	Screw, Cap - Hex Head (5/16-18 x 5/8")
8	854-0020	2	Washer, Lock - Spring (3/8")	18	149-0638	1	Washer, Lock - Spring (5/16")
9	520-0311	2	Stud	19	149-0736	1	Cover - Fuel Pump
10	148-0643	1	Carburetor, Gas Vapor	20	148-0597	1	Mounting Hole
11	145-0120	2	Gasket	21	150-0638	1	Gasket
12	814-0200	2	Screw, Machine - Flat Head (3/8-16 x 1-1/4")	22	115-0025	1	Regulator, Pressure - Natural Gas (3/4 NPT)
13	148-0774	1	Adapter, Carburetor Begin Spec H	23	850-0040	1	Joint, Ball
	148-0593	1	Spec C Thru G				Nut, Hex (1/4"-28)
							Washer, Lock (1/4")

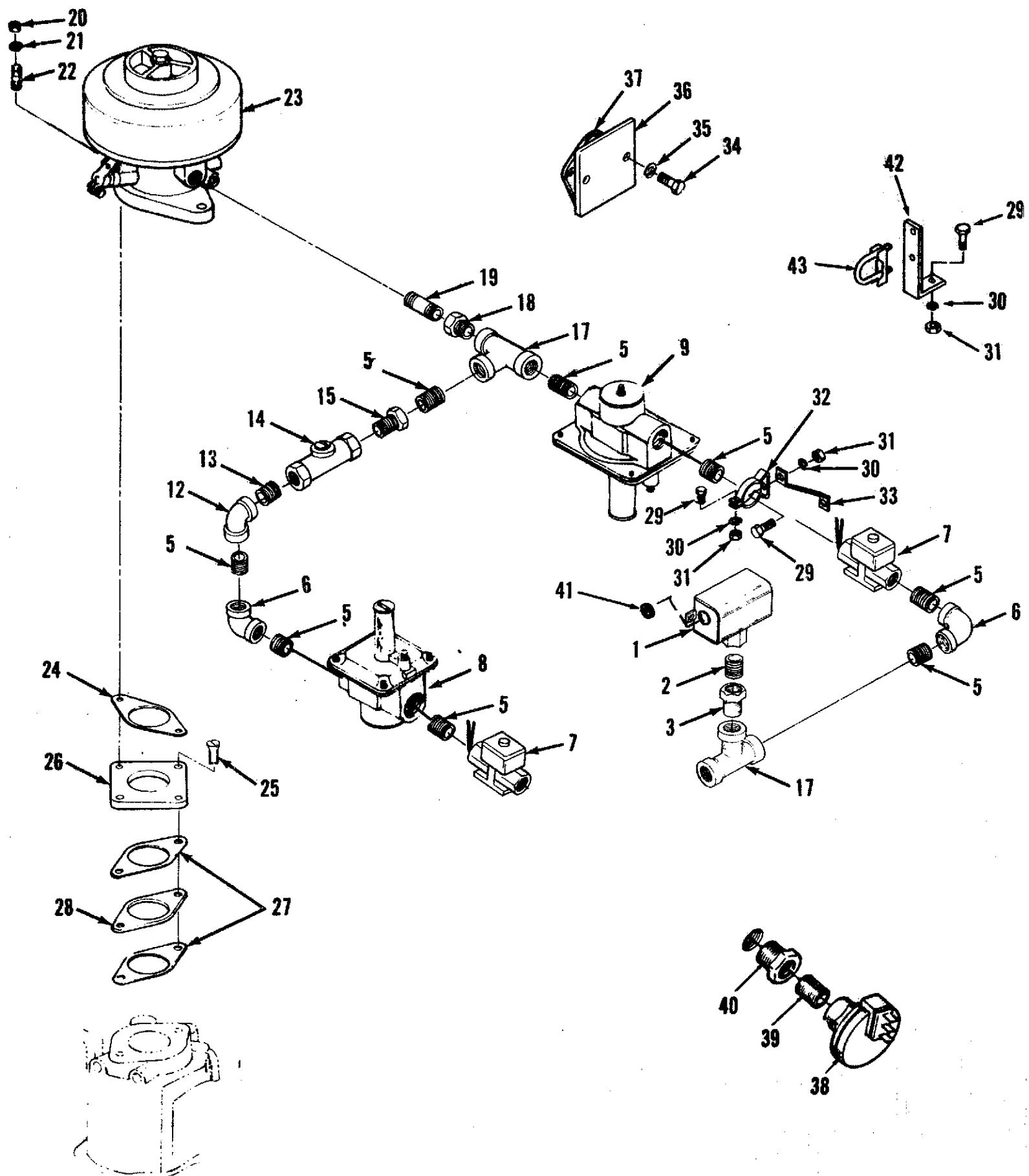
## Liquid Gas Fuel System



## Liquid Gas Fuel System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0398	2	Clamp, Hose	23	504-0005	1	Cock, Drain (1/8 NPT)
2	503-1103	1	Hose (1"ID x 22.5" Long)	24	503-0183	2	Clamp, Hose
3	862-0015	1	Nut, Hex (5/16-18)	25	503-0833	1	Hose (5/8"ID x 22")
4	307-0312	1	Valve, Solenoid - 12 VDC (3/4 NPT)	26	505-0135	1	Nipple, Pipe - Half (3/8 NPT x 1-1/2"LG)
5	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	27	505-0039	3	Elbow, Pipe - 90 Degrees (3/8 NPT)
6	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	28	505-0125	1	Nipple (3/8 NPT x 6")
7	104-0091	2	Nut, Hex (3/8-24)	29	505-0004	2	Nipple, Close (1" NPT)
8	854-0020	2	Washer, Lock - Spring (3/8")	30	504-0028	1	Cock, Drain (3/8 NPT)
9	520-0311	2	Stud	31	505-0060	1	Tee, Pipe (3/8 NPT)
10	148-0643	1	Carburetor, Gas Vapor	32	505-0017	1	Bushing, Reducer - Hex (3/8 NPT x 1/4 NPT)
11	145-0120	2	Gasket	33	505-0099	2	Nipple, Pipe - Close (1/4 NPT x 7/8 "LG)
12	814-0200	2	Screw, Machine - Flat Head (3/8-16 x 1-1/4")	34	505-0101	1	Nipple, Close (3/8 NPT)
13			Adapter, Carburetor	35	503-0833	1	Hose (5/8"ID x 24")
	148-0774	1	Begin Spec H	36	130-0678	1	Line, Water
	148-0593	1	Spec C Thru G	37	502-0103	1	Adapter, Tube to Pipe
14			Gasket	38	505-0028	1	Coupling, Pipe (3/8 NPT)
	148-0775	2	Begin Spec H	39	502-0943	3	Connector, Hose (5/8"ID Hose)
	154-2801	2	Spec C Thru G	40	148-0603	1	Bracket, Mounting
15			Plate, Restricting (EK Only)	41	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2")
	145-0494	1	Spec H Thru L	42	850-0040	4	Washer, Lock - Spring (1/4")
	145-0467	1	Spec C Thru G	43	862-0001	4	Nut, Hex (1/4-20)
16	800-0025	3	Screw, Cap - Hex Head (5/16-18 x 5/8")	44	148-0625	1	Converter, Liquid Gas
17	850-0045	3	Washer, Lock - Spring (5/16")	45	800-0069	1	Screw, Cap - Hex Head (7/16-14 x 3/4")
18	149-0638	1	Cover - Fuel Pump	46	800-0071	1	Screw, Cap - Hex Head (7/16-14 x 1")
			Mounting Hole				Washer, Lock - Spring (7/16")
19	149-0736	1	Gasket, Fuel Pump				Elbow, Street - 45° (3/4")
20	505-0356	2	Elbow, Pipe - 90 DEG (3/4 x 1")	47	850-0055	2	
21	148-0604	1	Brace, Mounting	48	505-0287	1	
22	502-0971	3	Connector, Hose (1"ID Hose)				

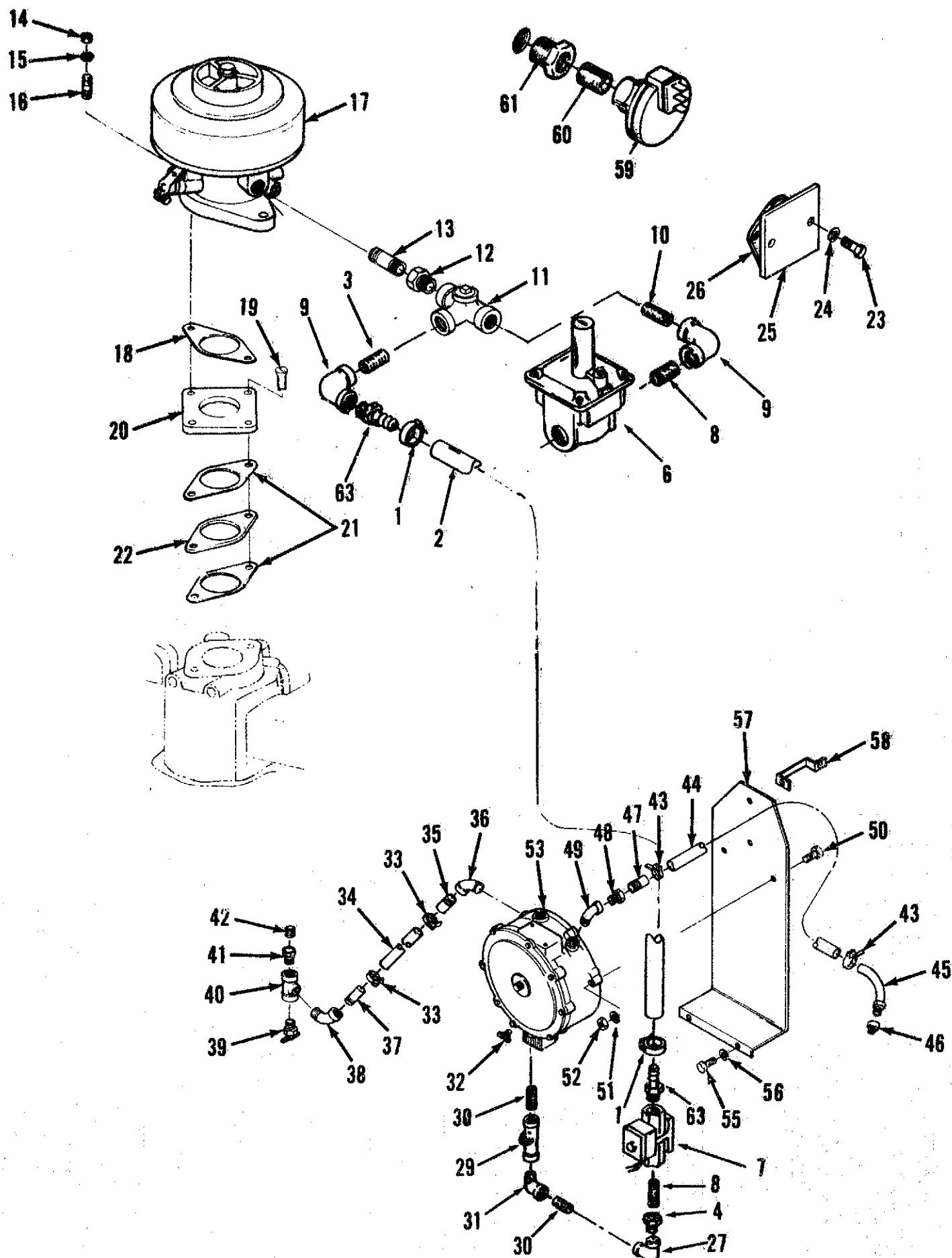
**Automatic Changeover Liquid Gas and Natural Gas Fuel System**



## Automatic Changeover Liquid Gas and Natural Gas Fuel System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	148-0627	1	Switch, Pressure - 12 VDC	23	148-0643	1	Carburetor, Gas Vapor
2	505-0099	1	Nipple, Pipe - Close (1/4 NPT x 7/8"LG)	24	145-0120	2	Gasket
3	505-0020	1	Bushing, Reducer - Hex (3/4 NPT x 1/4 NPT)	25	814-0200	2	Screw, Machine - Flat Head (3/8-16 x 1-1/4")
4	505-0007	1	Bushing, Reducer - Hex	26	148-0774	1	Adapter, Carburetor
5			Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)		148-0593	1	Begin Spec H Spec C Thru G
	505-0102	9	Use with Electronic Governor	27	148-0775	2	Gasket
	505-0102	8	Use with Mechanical Governor		154-2801	2	Begin Spec H Spec C Thru G
6			Elbow, Pipe - 90 DEG (3/4 NPT)	28	145-0494	1	Plate, Restricting (EK Only)
	505-0132	3	Use with Electronic Governor		145-0467	1	Spec H Thru L
	505-0132	2	Use with Mechanical Governor	29	800-0007	2	Spec C Thru G
7	307-0312	2	Valve, Solenoid - 12 VDC (3/4 NPT)	30	850-0040	2	Screw, Cap - Hex Head (1/4-20 x 1")
8	148-0637	1	Regulator, Pressure - Liquid Gas Vapor (3/4 NPT)	31	862-0001	2	Washer, Lock - Spring (1/4")
9	148-0597	1	Regulator, Pressure - Natural Gas (3/4 NPT)	32	331-0101	1	Nut, Hex (1/4-20)
10	502-0971	2	Connector, Hose - Begin Spec R	33	148-0673	1	Hanger, Pipe (Use With Mechanical Governor)
11	508-0008	1	Grommet, Rubber	34	800-0025	2	Bracket, Support (Use With Mechanical Governor)
12	505-0356	1	Elbow, Pipe - Reducing, 90 DEG (1 NPT x 3/4 NPT)	35	850-0045	2	Screw, Cap - Hex Head (5/16-18 x 5/8")
13	505-0004	1	Nipple, Pipe - Close (1 NPT x 1-1/2"LG)	36	149-0638	1	Washer, Lock - Spring (5/16")
14	148-0626	1	Valve, Control (1 NPT)	37	149-0736	1	Cover - Fuel Pump Mounting Hole
15	505-0129	1	Bushing, Reducer - Hex (1 NPT x 3/4 NPT)	38	148-0367	1	Gasket
17	505-0166	2	Tee, Pipe (3/4 NPT)	39	505-0098	1	Switch, Control - Vacuum (12 VDC)
18	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	40	505-0029	1	Nipple, Pipe - Close
19	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	41	508-0008	1	Coupling, Pipe (3/4 NPT)
20	104-0091	2	Nut, Hex (3/8-24)	42	148-0994	1	Begin Spec R
21	854-0020	2	Washer, Lock - Spring (3/8")	43	155-1015	1	Grommet, Rubber
22	520-0311	2	Stud				Brace (Use With Electronic Governor)
							Clamp, Muffler (Use With Electronic Governor)

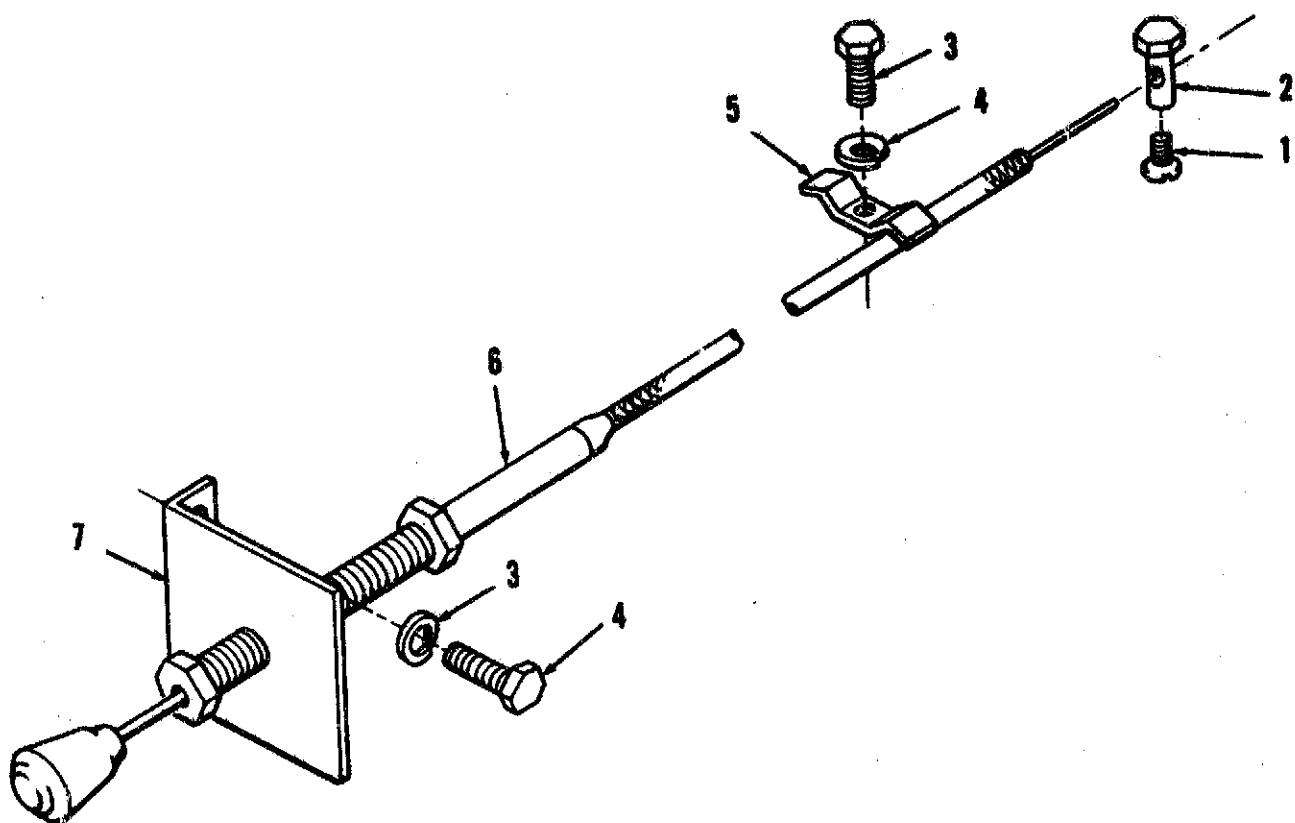
## Liquid Gas and Natural Gas Fuel System



## Liquid Gas and Natural Gas Fuel System

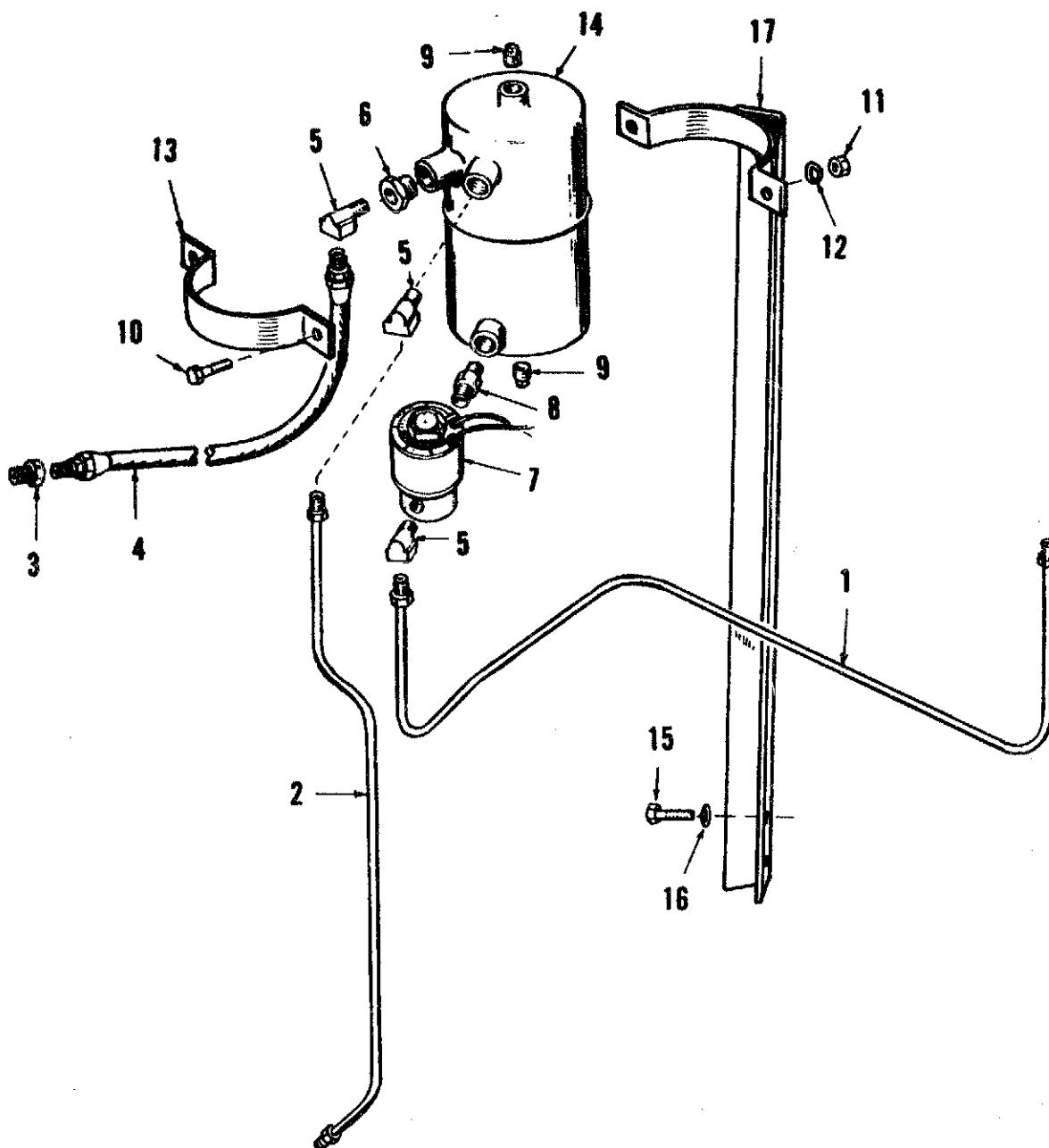
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0189	2	Clamp, Hose Hose	29	148-0626	1	Valve, Control (1 NPT)
2	503-1163	1	24" Long	30	505-0086	2	Nipple, Pipe (1 NPT x 2.5"LG)
	503-1201	1	12" Long	31	505-0003	1	Elbow, Pipe - Street, 90 DEG (1 NPT)
	503-0895	1	5" Long	32	504-0005	1	Cock, Drain (1/8 NPT)
3	505-0087	1	Nipple, Pipe - Half (1" NPT x 3"LG)	33	503-0183	1	Clamp, Hose
4	505-0129	1	Bushing, Reducer - Hex (1 NPT x 3/4 NPT)	34	503-0833	1	Hose, Rubber - 22" Long
6	148-0597	1	Regulator, Pressure - Natural Gas (3/4 NPT)	35	505-0135	1	Nipple, Pipe - Half (3/8 NPT x 1-1/2"LG)
7	307-0312	1	Valve, Solenoid - 12 VDC (3/4 NPT)	36	505-0119	1	Elbow, Pipe - Street, 45 DEG (3/8 NPT)
8	505-0102	2	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)	37	505-0125	1	Nipple, Pipe (3/8 NPT x 6"LG)
9	505-0356	2	Elbow, Pipe - 90 DEG(1"x3/4")	38	505-0119	1	Elbow, Pipe - Street, 45 DEG (3/8 NPT)
10	505-0004	1	Nipple, Pipe - Close (1"x1.5") (1 NPT x 3/4 NPT)	39	504-0028	1	Cock, Drain (3/8 NPT)
11	504-0083	1	Valve, Control - Three Way (1 NPT)	40	505-0060	1	Tee, Pipe (3/8 NPT)
12	505-0022	1	Bushing, Reducer - Hex (1 NPT x 1/2 NPT)	41	505-0017	1	Bushing, Reducer - Hex (3/8 NPT x 1/4 NPT)
13	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	42	505-0099	1	Nipple, Pipe - Close (1/4 NPT x 7/8 "LG)
14	104-0091	2	Nut, Hex (3/8-24)	43	503-0032	2	Clamp, Hose
15	854-0020	2	Washer, Lock - Spring (3/8")	44	503-0386	1	Hose, Rubber
16	520-0311	1	Stud	45	130-0678	1	Line, Water
17	148-0643	1	Carburetor, Gas Vapor	46	502-0103	1	Adapter, Tube to Pipe
18	145-0120	2	Gasket	47	505-0010	1	Nipple, Pipe - Half (1/4 NPT x 1"LG)
19	814-0200	2	Screw, Machine - Flat Head (3/8-16 x 1-1/4")	48	505-0017	1	Bushing, Reducer - Hex (3/8 NPT x 1/4 NPT)
20			Adapter, Carburetor Begin Spec H	49	505-0119	1	Elbow, Pipe - Street, 45 DEG (3/8 NPT)
	148-0774	1	Spec C Thru G	50	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2")
	148-0593	1	Gasket	51	850-0040	2	Washer, Lock - Spring (1/4")
21			Begin Spec H	52	862-0001	2	Nut, Hex (1/4-20)
	148-0775	2	Spec C Thru G	53	148-0625	1	Converter, Liquid Gas
	154-2801	2	Plate, Restricting (EK Only)	54	800-0069	1	Screw, Cap - Hex Head (7/16-14 x 3/4")
22			Spec H Thru L	55	800-0071	1	Screw, Cap - Hex Head (7/16-14 x 1")
	145-0494	1	Spec C Thru G	56	850-0055	2	Washer, Lock - Spring (7/16")
	145-0467	1	Screw, Cap - Hex Head (5/16-18 x 5/8")	57	148-0603	1	Bracket, Mounting
23	800-0025	3	Washer, Lock - Spring (5/16")	58	148-0604	1	Brace, Mounting
24	850-0045	3	Cover - Fuel Pump Mounting Hole	59	148-0367	1	Switch, Control - Vacuum (12 VDC)
25	149-0638	1	Gasket	60	505-0098	1	Nipple, Pipe - Close
26	149-0736	1	Elbow, Pipe - 90 DEG (1 NPT)	61	505-0007	1	Bushing, Reducer - Hex
27	505-0041	1	(3/4 NPT x 1/2 NPT)	62	862-0015	1	Nut, Hex (5/16-18)
28	505-0004	1	Nipple, Pipe - Close (1 NPT x 1-1/2"LG)	63	502-0940	2	Connector, Hose - Barbed

## Vernier Throttle



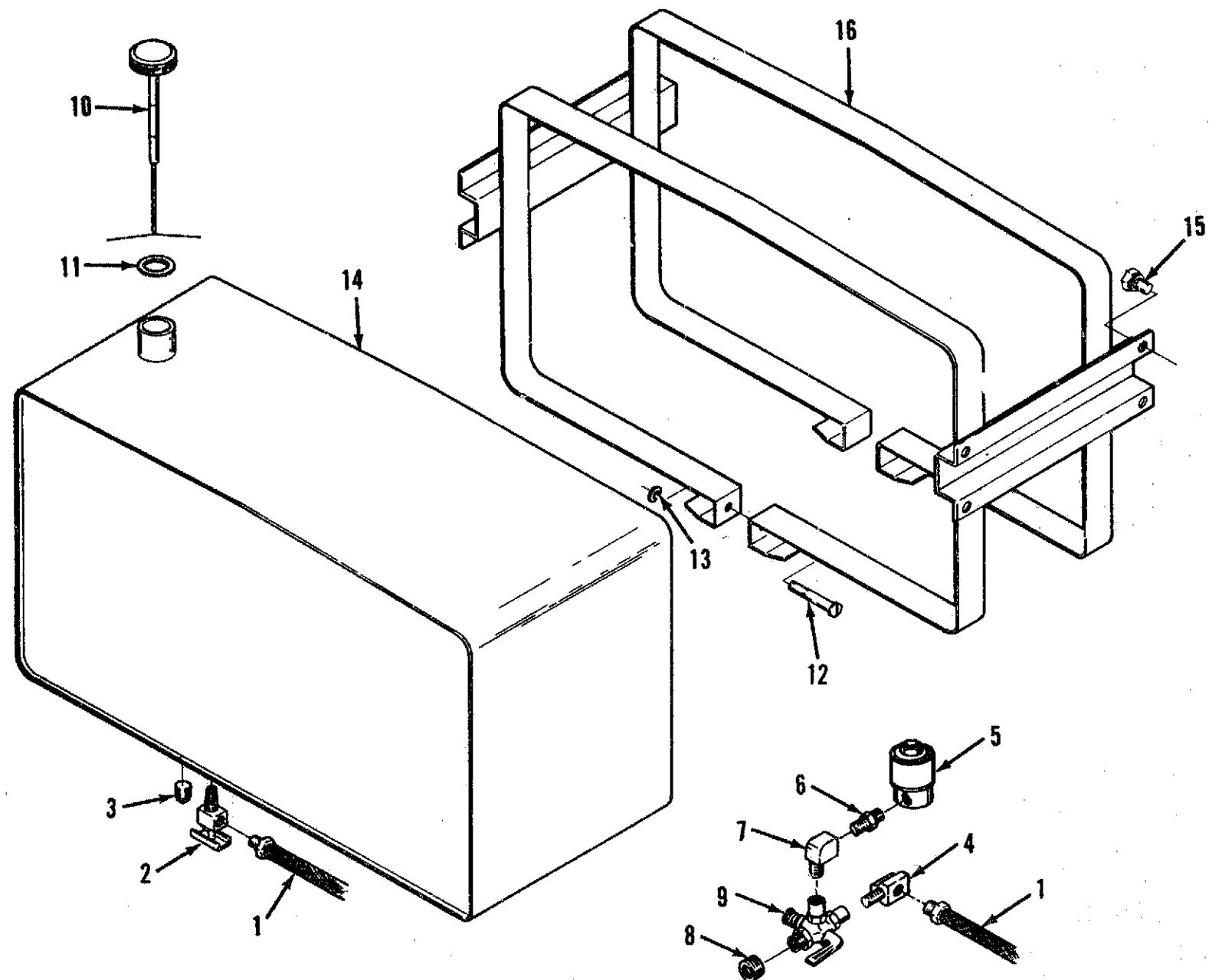
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0075	1	Screw, Machine - Round Head (#8-32 x 1/2")	4	850-0040	3	Washer, Lock - Spring (1/4")
2	152-0158	1	Swivel	5	152-0036	1	Clamp, Cable
3	800-0005	3	Screw, Cap - Hex Head (1/4-20 x 3/4")	6	152-0120	1	Throttle, Vernier
				7	151-0230	1	Bracket, Mounting

## Day Tank



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	159-0859	1	Line, Fuel - Metal Tubing	10	800-0035	2	Screw, Cap - Hex Head (1/4-20 x 3/4")
2	159-0860	1	Line, Fuel - Metal Tubing	11	862-0001	2	Nut, Hex (1/4-20)
3	502-0003	1	Adapter, Line to Pipe	12	850-0040	2	Washer, Lock - Spring (1/4)
4	501-0009	1	Line, Fuel - Flexible 59"LG	13	159-0680	1	Clamp For One Quart Tank Mounting
5	501-0010	1	42"LG	159-0875	1	For Two Quart Tank Mounting	
6	502-0002	2	Elbow, Pipe - 90 DEG, Brass	14	159-0294	1	Tank, Fuel One Quart
7	159-0705	1	Bushing, Reducer - Hex, Restricting (3/8 NPT x 1/8 NPT)	159-0746	1	Two Quart	
8	307-0555	1	Valve, Solenoid - 12 VDC	15	800-0071	2	Screw, Cap - Hex Head (7/16-14 x 1")
9	502-0082	1	Nipple, Pipe - Hex (1/8 NPT)	16	850-0055	2	Washer, Lock - Spring (7/16")
9	505-0057	2	Plug, Pipe - Square Head (1/8 NPT)	17	159-0861	1	Bracket, Mounting For One Quart Tank Mounting
					159-0876	1	For Two Quart Tank Mounting

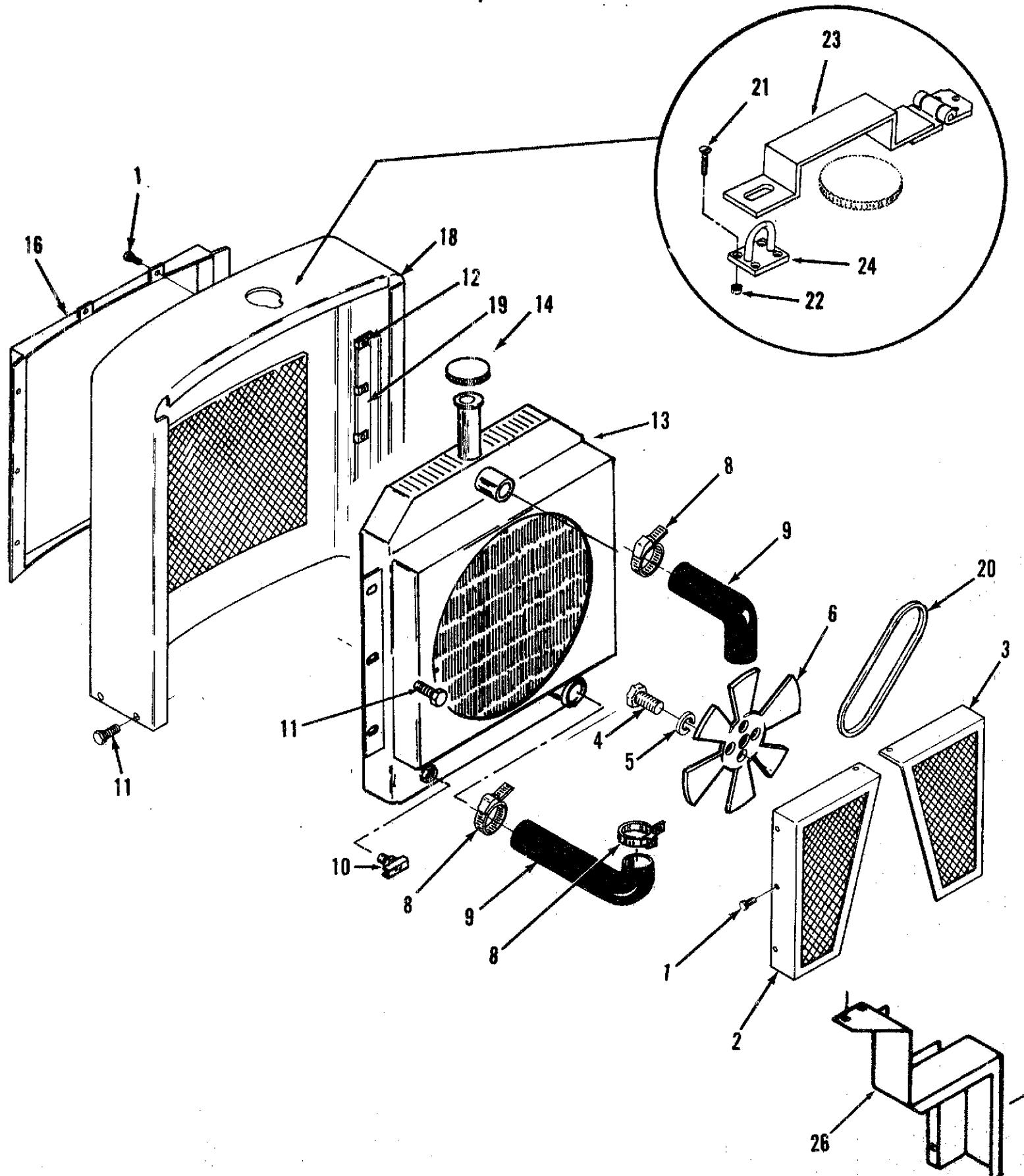
## Fuel Tank



## Fuel Tank

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0009	1	Line, Fuel - Flexible 36"LG	9	504-0004	1	Valve, Control - Three Way (1/8 NPT)
	501-0010	1	42"LG	10	159-0512	1	Cap and Indicator, Fuel (Includes Gasket)
2	504-0007	1	Valve, Control (1/8 NPT) Without Screen	11	159-0751	1	Gasket
	504-0013	1	With Screen	12	812-0158	2	Screw, Machine - Round Head (1/4-20 x 2")
3	505-0057	1	Plug, Pipe - Square Head (1/8 NPT)	13	850-0040	2	Washer, lock - Spring (1/4")
4	502-0002	1	Elbow, Pipe - Street, 90 DEG (1/4" Tube x 1/8 NPT)	14	159-0490	1	Tank, Fuel - 20 GAL (Excludes Cap)
5	307-0867	1	Valve, Solenoid - 12 VDC	159-1025		1	Two Fuel Ports
6	502-0082	1	Nipple, Pipe - Hex (1/8 NPT)	15	821-0010	1	Three Fuel Ports
7	502-0020	1	Elbow, Pipe - Street, 90 DEG (1/8 NPT)	16	159-0489	8	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
8	505-0274	1	Plug, Pipe - Socket Drive (1/8 NPT)			1	Strap, Mounting

**Radiator Cooling System**  
EK Spec C-U  
EK Spec A, B  
EM Spec C-U



### Radiator Cooling System

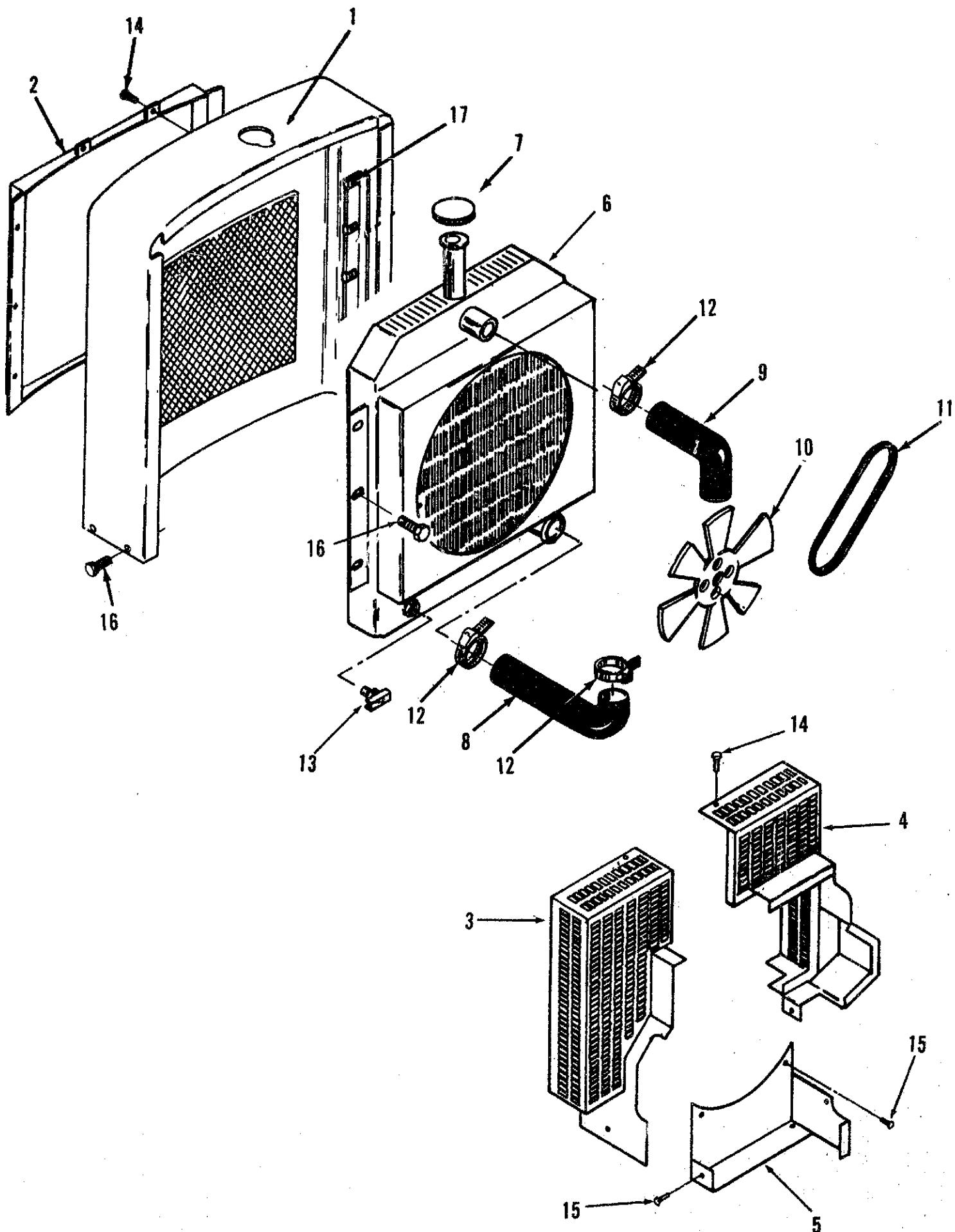
EK Spec C-U

EK Spec A,B

EM Spec C-U

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0181	8	Screw, Cap - Hex Head, Thread Cutting, with ET Lock Washer (#10-32 x 1/2")	12	870-0114	12	Nut, Retainer (5/16-18)
2	130-0352	1	Guard, Fan - Right Side	13	130-0604	1	Radiator (Includes Cap)
3	130-0351	1	Guard, Fan - Left Side	14	130-0449	1	Cap, Radiator
4	801-0024	4	Screw, Cap - Hex Head (5/16-24 x 1/2")	16	405-1054	1	Flange, Air Duct
5	850-0045	4	Washer, Lock - Spring (5/16")	18	405-1811	1	Panel, Housing - Front
6			Fan	19	130-2217	2	Bracket, Mounting
	130-1236	1	Begin Spec K	20	511-0075	1	Belt, Drive
	130-0355	1	Spec C Thru J	21	814-0079	7	Screw, Machine - Flat Head (#8-32 x 1/2")
8	503-0365	4	Clamp, Hose	22	870-0221	7	Nut, Hex With External Tooth Lock Washer (#8-32)
9			Hose - Preformed	23	406-0469	1	Strap, Hasp
	503-0490	1	Lower	24	406-0471	1	Latch, Hasp
	503-0491	1	Upper	25	821-0010	4	Screw, Lock Head (1/4-20 x 1/2")
10	504-0028	1	Cock, Drain (3/8 NPT)	26	191-2058	1	Guard, Belt
11	821-0014	14	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")				

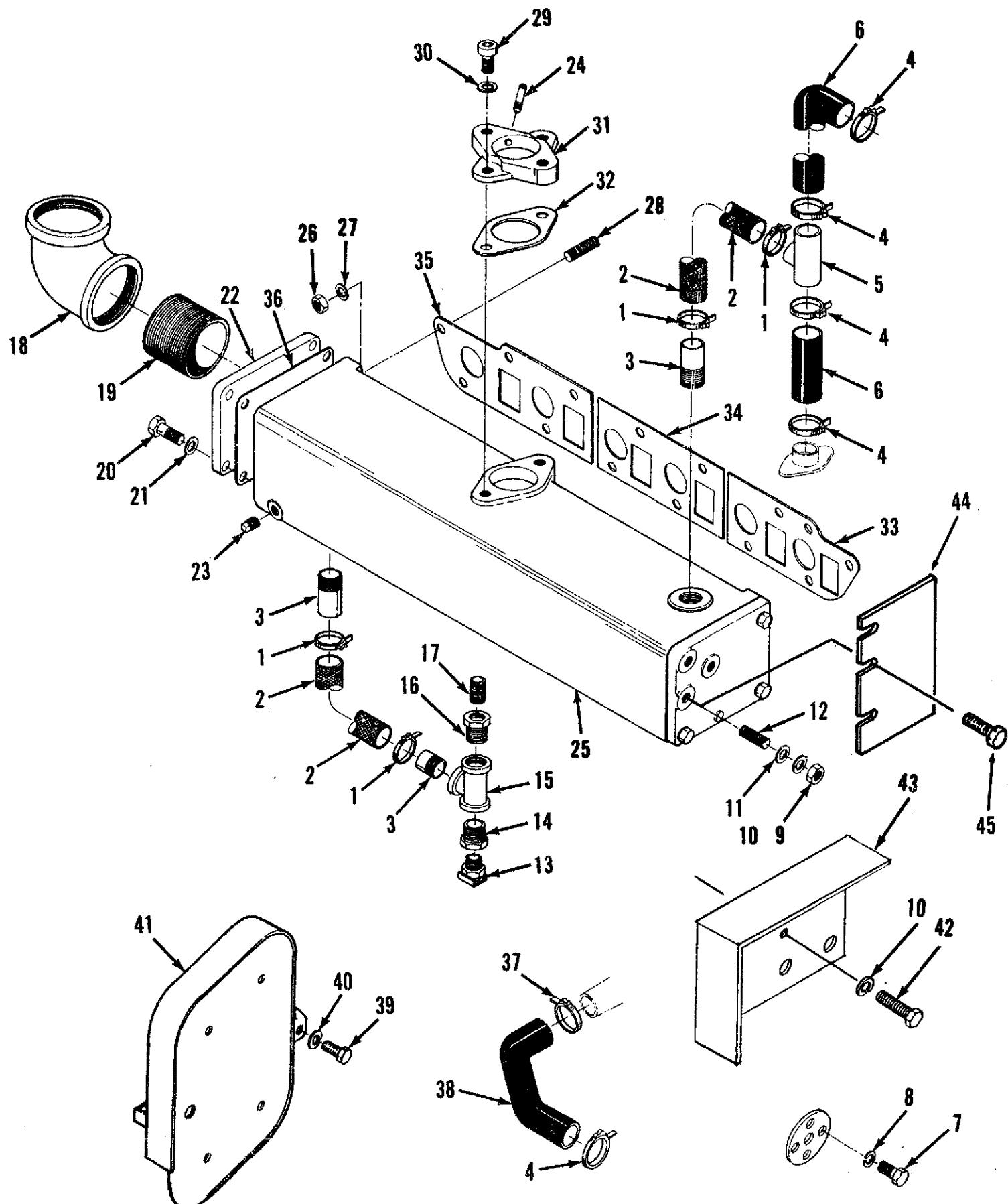
**Radiator Cooling System**  
**"EK Begin Spec C, EM Begin Spec V"**



**Radiator Cooling System**  
**"EK Begin Spec C, EM Begin Spec V"**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	405-1811	1	Panel, Front	11	511-0075	1	Belt, Drive
2	405-1054	1	Flange, Air Duct	12	503-0365	4	Clamp, Hose
3	130-4246	1	Guard, Belt - Right Side	13	504-0028	1	Cock, Drain
4	130-4245	1	Guard, Belt - Left Side	14	815-0181	18	Screw, Cap - Hex Head, Thread Cutting, with ET Lockwasher (#10-32 x 1/2")
5	130-4252	1	Guard, Belt - Lower	15	821-0010	4	Screw, Lockhead (1/4-20 x 1/2")
6	130-4267	1	Radiator (Includes Cap)	16	821-0014	14	Screw, Lockhead (5/16-18 x 1/2")
7	130-0449	1	Cap, Radiator	17	870-0114	6	Nut, Retainer (5/16-18)
8	503-0490	1	Hose, Radiator - Lower				
9	503-0491	1	Hose, Radiator - Upper				
10	130-1236	1	Fan				

## Remote Radiator Cooling System

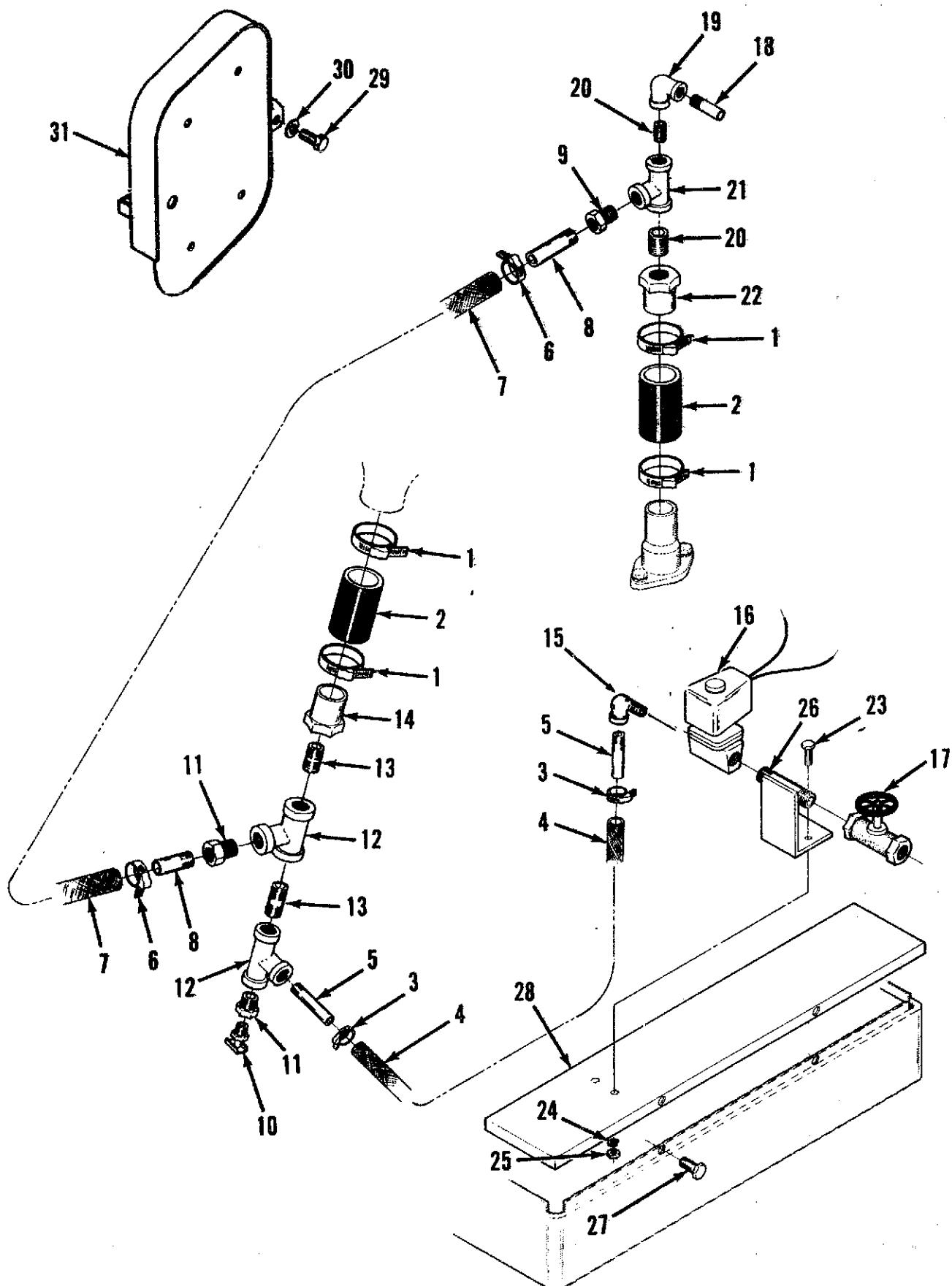


## Remote Radiator Cooling System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0189	1	Clamp, Hose	24	505-0271	1	Nipple, Pipe (1/4 NPT x 3-1/2"LG)
2	503-1194	1	Hose, 1 Foot Long	25	154-2345	1	Manifold, Liquid Cooled (Includes Parts Marked *)
3	503-1194	3	Connector, Hose (1/2 NPT x 2" Long)	26	862-0003	13	*Nut, Hex (3/8-24)
4	503-0311	2	Clamp, Hose	27	850-0050	13	*Washer, Lock - Spring (3/8")
5	503-0517	1	Adapter, Hose	28	520-0564	13	*Stud
6	503-0491	1	Hose, Preformed - Upper	29	802-0072	2	*Screw, Cap - Socket Head (3/8-16 x 1")
7	801-0027	4	Screw, Cap - Hex Head (5/16-24 x 7/8")	30	850-0050	2	*Washer, Lock - Spring (3/8")
8	850-0045	4	Washer, Lock - Spring (5/16")	31		1	*Adapter, Carburetor Mounting
9	104-0091	3	Nut, Hex (3/8-24)	32	145-0120	1	*Gasket, Carburetor
10	850-0050	3	Washer, Lock - Spring (3/8")	33	154-1296	1	*Gasket, Rear Manifold
11	526-0030	3	Washer, Flat (3/8")	34	154-1297	1	*Gasket, Center Manifold
12	520-0238	2	Stud	35	154-1298	1	*Gasket, Front Manifold
13	504-0003	1	Cock, Drain (1/4 NPT)	36	154-1299	1	*Gasket, Manifold End
14	505-0018	1	Bushing, Reducer - Hex (1/2 NPT x 1/4 NPT)	37	503-0365	4	Clamp, Hose
15	505-0108	1	Tee, Pipe (1/2 NPT)	38	503-0490	1	Hose, Preformed - Lower
16	505-0019	1	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	39	800-0069	2	Screw, Cap - Hex Head (7/16-14 x 3/4")
17	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1"LG)	40	850-0055	2	Washer, Lock - Spring (7/16")
18	505-0175	1	Elbow, Pipe - 90° (2 NPT)	41	130-4099	1	Guard, Belt
19	505-0172	1	Nipple, Pipe - Close (2 NPT x 2"LG)	42	800-0046	3	Screw, Cap - Hex Head (3/8-16 x 1/2")
20	800-0051	4	Screw, Cap - Hex Head (3/8-16 x 1-1/4")	43	130-2937	1	Guard, Belt
21	526-0066	4	Washer, Flat (3/8")	44	130-4264	1	Guard, Belt
22	154-1335	1	Flange, Manifold - Exhaust	45	800-0052	1	Screw, Cap - Hex Head (3/8-16 x 1-1/2")
23	505-0057	1	Plug, Pipe - Square Head (1/8 NPT)	46	895-0296-01	1	Tubing, Glass Fiber(Not Shown)



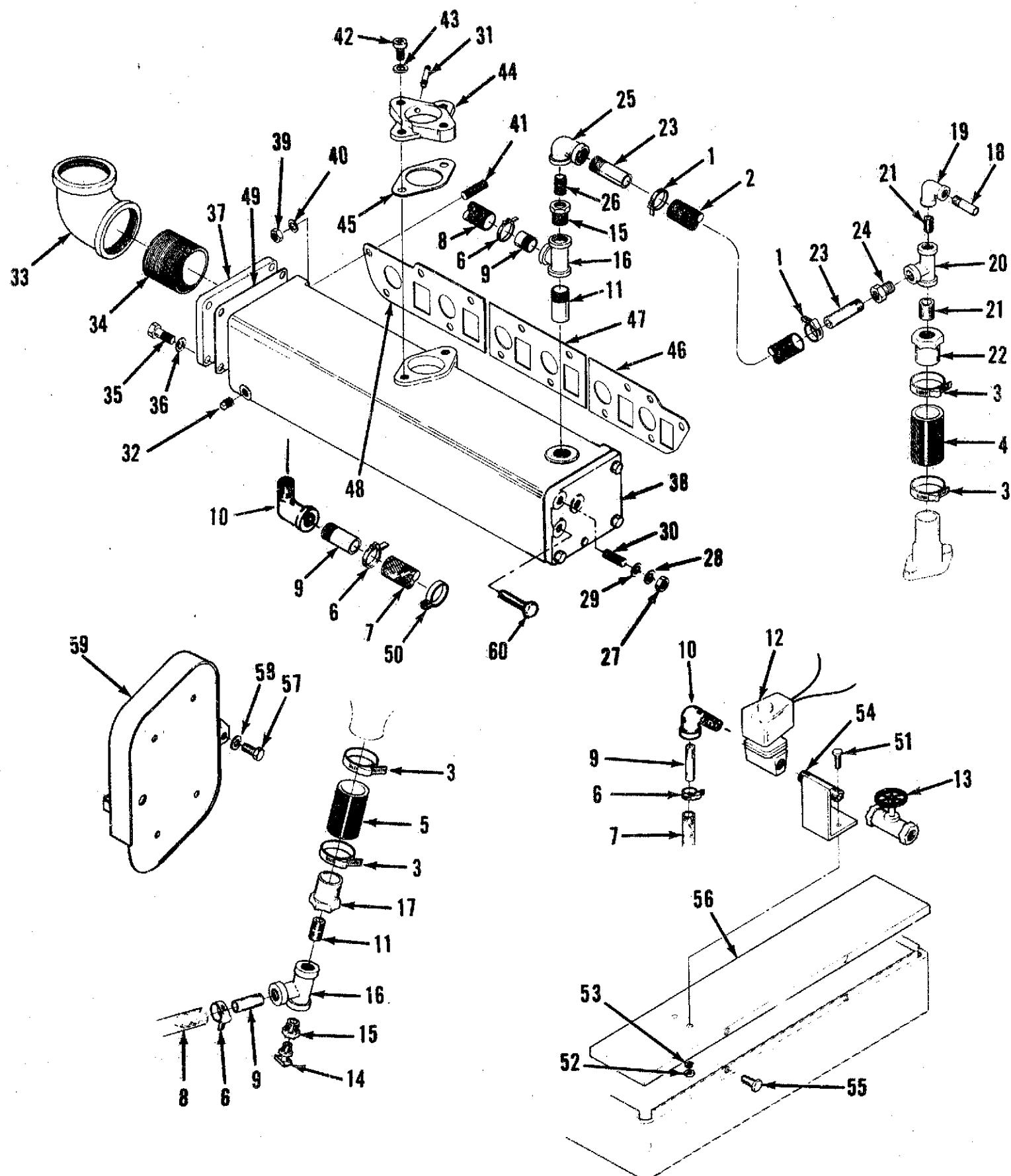
## City Water Cooling System



## City Water Cooling System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0365	4	Clamp, Hose	17	504-0019	1	Valve, Globe (1/2 NPT)
2	503-0826	2	Hose	18	505-0324	1	Nipple, Pipe - Half (3/4 NPT x 2"LG)
3	503-0189	2	Clamp, Hose	19	505-0132	1	Elbow, Pipe - 90 DEG (3/4 NPT)
4	503-0461	1	Hose	20	505-0102	2	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)
5	502-1031	3	Nipple, Pipe - Half (1/2 NPT x 2" Long)	21	505-0166	1	Tee, Pipe (3/4 NPT)
6	503-0032	2	Clamp, Hose	22	110-1543	1	Adapter, Hose - Hex
7	503-0586	1	Hose	23	800-0007	2	Screw, Cap - Hex Head (1/4-20 x 1")
8	505-0010	2	Nipple, Pipe - Half (1/2 NPT x 1-1/2"LG)	24	850-0040	2	Washer, Lock - Spring (1/4")
9	505-0020	1	Bushing, Reducer - Hex (3/4 NPT x 1/4 NPT)	25	862-0001	2	Nut, Hex (1/4-20)
10	504-0003	1	Cock, Drain (1/4 NPT)	26	110-0526	1	Bracket and Nipple Assembly
11	505-0018	1	Bushing, Reducer - Hex (1/2 NPT x 1/4 NPT)	27	821-0014	6	Screw, Self-locking - Hex Washer Head (5/16-18 x 5/8")
12	505-0018	2	Tee, Pipe (1/2 NPT)	28	130-0499	1	Plate, Mounting
13	505-0100	2	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	29	800-0069	2	Screw, Cap - Hex Head (7/16-14 x 3/4")
14	110-0576	1	Adapter, Hose - Hex	30	850-0055	2	Washer, Lock - Spring (7/16")
15	505-0050	1	Elbow, Street - 90 DEG (1/2 NPT)	31	130-4099	1	Guard, Belt
16	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)				

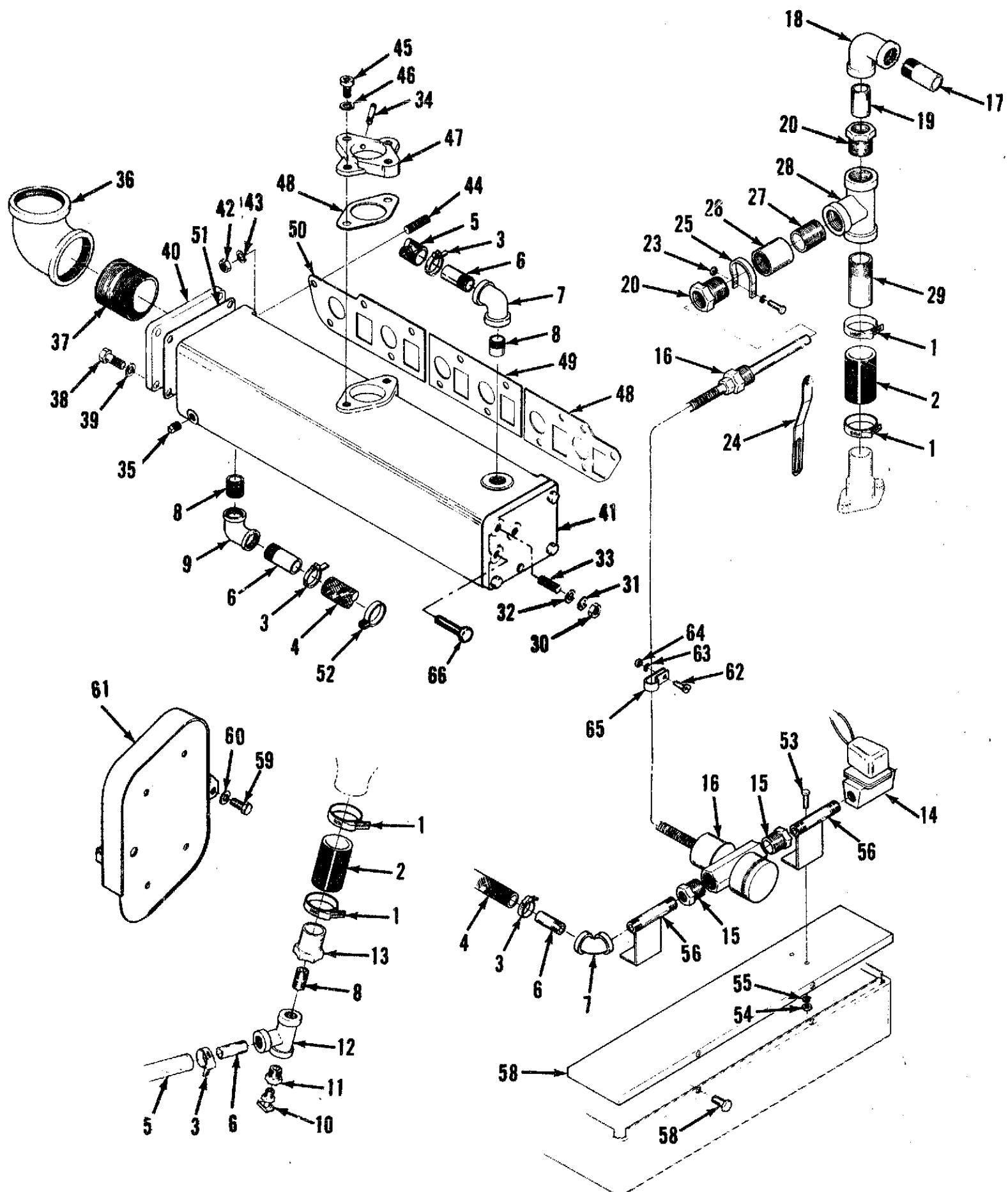
Non-Regulated City Water and Wet Manifold Cooling System



## Non-Regulated City Water and Wet Manifold Cooling System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0032	2	Clamp, Hose	32	505-0056	1	Plug, Pipe - Square Head (1/2 NPT)
2	503-0084	1	Hose	33	505-0175	1	Elbow, Pipe - 90 DEG (2 NPT)
3	503-0365	4	Clamp, Hose	34	505-0172	1	Nipple, Pipe - Close (2 NPT x 2"LG)
4	503-0826	1	Hose	35	800-0051	4	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
5	503-0826	1	Hose	36	526-0066	4	Washer, Flat (3/8")
6	503-0183	4	Clamp, Hose	37	154-1335	1	Flange, Exhaust - Manifold
7	503-1196	1	Hose, 5 Feet Long	38	154-2345	1	Manifold, Liquid Cooled (Includes Parts Marked *)
8	503-0200	1	Hose - 3 Feet Long	39	862-0003	13	*Nut, Hex (3/8-24)
9	502-1031	4	Nipple, Pipe - Half (1/2 NPT x 2" Long)	40	850-0050	13	*Washer, Lock - Spring (3/8")
10	505-0050	2	Elbow, Street - 90 DEG (1/2 NPT)	41	520-0564	13	*Stud
11	505-0100	2	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	42	802-0072	2	*Screw, Cap - Socket Head (3/8-16 x 1")
12	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)	43	850-0050	2	*Washer, Lock - Spring (3/8")
13	504-0019	1	Valve, Globe (1/2 NPT)	44		1	*Adapter, Carburetor Mounting
14	504-0003	1	Cock, Drain (1/4 NPT)	45	145-0120	1	*Gasket, Carburetor
15	505-0018	1	Bushing, Reducer - Hex (1/2 NPT x 1/4 NPT)	46	154-1296	1	*Gasket, Rear Manifold
16	505-0108	2	Tee, Pipe (1/2 NPT)	47	154-1297	1	*Gasket, Center Manifold
17	110-0576	1	Adapter, Hose - Hex	48	154-1298	1	*Gasket, Front Manifold
18	505-0324	1	Nipple, Pipe - Half (3/4 NPT x 2"LG)	49	154-1299	1	*Gasket, Manifold End
19	505-0132	1	Elbow, Pipe - 90 DEG (3/4 NPT)	50	148-0274	1	Bracket
20	505-0166	1	Tee, Pipe (3/4 NPT)	51	800-0007	2	Screw, Cap - Hex Head (1/4-20 x 1")
21	505-0102	2	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)	52	850-0040	2	Washer, Lock - Spring (1/4")
22	110-1543	1	Adapter, Hose - Hex	53	862-0001	2	Nut, Hex (1/4-20)
23	505-0010	2	Nipple, Pipe - Half (1/4 NPT x 1"LG)	54	110-0526	1	Bracket and Nipple Assembly
24	505-0020	1	Bushing, Reducer - Hex (3/4 NPT x 1/4 NPT)	55	821-0014	6	Screw, Self-locking - Hex Washer Head (5/16-18 x 5/8")
25	505-0038	1	Elbow, Pipe - 90 DEG (1/4 NPT)	56	130-0499	1	Plate, Mounting
26	505-0099	1	Nipple, Pipe - Close (1/4 NPT x 7/8"LG)	57	800-0069	2	Screw, Cap - Hex Head (7/16-14 x 3/4")
27	104-0091	3	Nut, Hex (3/8-24)	58	850-0055	2	Washer, Lock - Spring (7/16")
28	850-0050	3	Washer, Lock - Spring (3/8")	59	130-4099	1	Guard, Belt
29	526-0030	3	Washer, Flat (3/8")	60	800-0052	1	Screw, Cap - Hex Head (3/8-16 x 1-1/2")
30	520-0238	2	Stud				
31	505-0271	1	Nipple, Pipe (1/4 NPT x 3-1/2"LG)				* - Parts Included with Manifold.

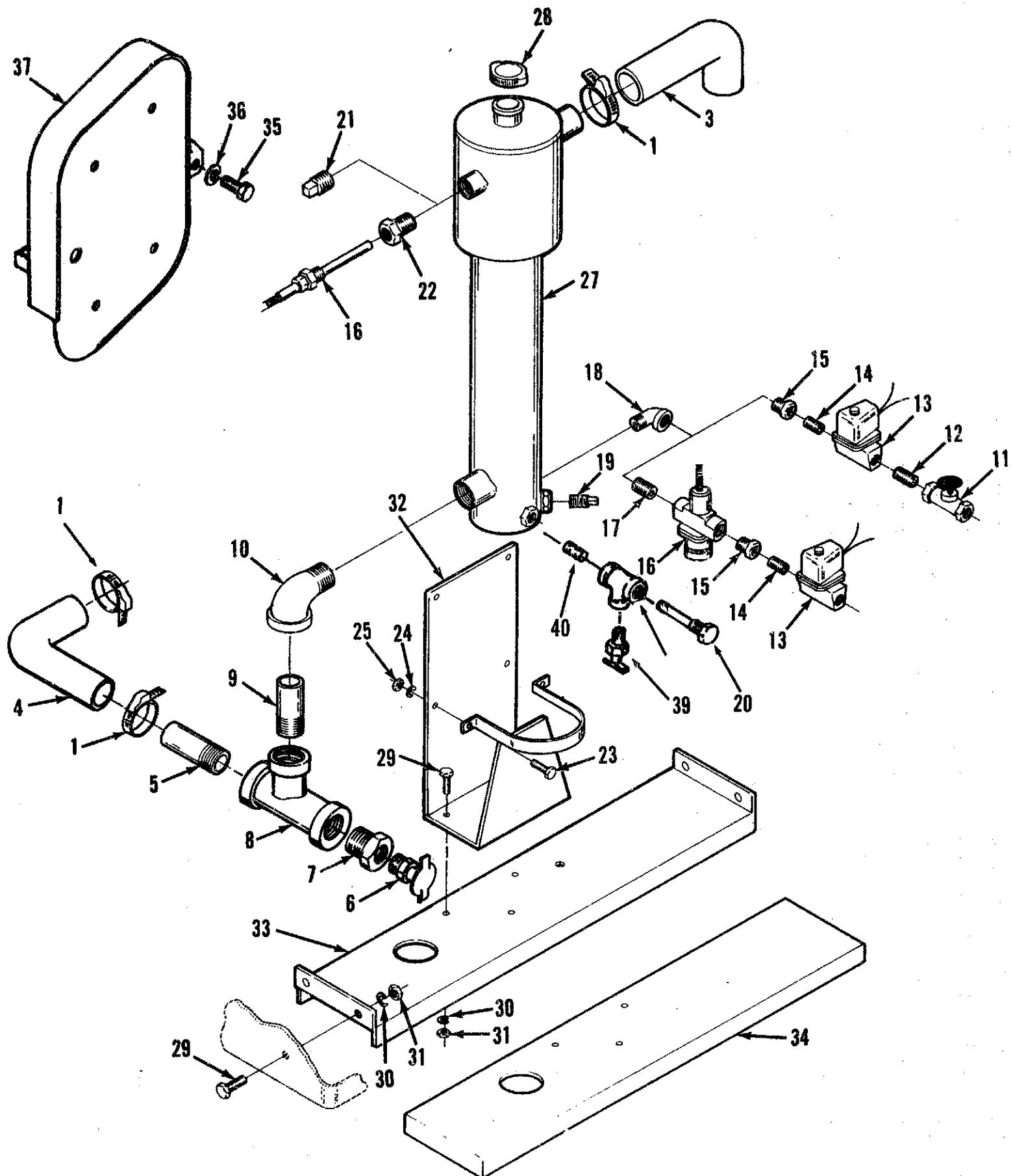
**Regulated City Water and Wet Manifold Cooling System**



## Regulated City Water and Wet Manifold Cooling System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0365	4	Clamp, Hose	35	505-0056	1	Plug, Pipe - Square Head (1/2 NPT)
2	503-0826	2	Hose	36	505-0175	1	Elbow, Pipe - 90 DEG (2 NPT)
3	503-0183	4	Clamp, Hose	37	505-0172	1	Nipple, Pipe - Close (2 NPT x 2"LG)
4	503-1196	1	Hose, 5 Feet Long	38	800-0051	4	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
5	503-1194	1	Hose, 1 Foot Long	39	526-0066	4	Washer, Flat (3/8")
6	502-1031	4	Nipple, Pipe - Half (1/2 NPT x 2" Long)	40	154-1335	1	Flange, Exhaust - Manifold
7	505-0040	2	Elbow, Pipe - 90 DEG (1/2 NPT)	41	154-2345	1	Manifold, Liquid Cooled (Includes Parts Marked *)
8	505-0100	4	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	42	862-0003	13	*Nut, Hex (3/8-24)
9	505-0190	1	Elbow, Pipe - 45 DEG (1/2 NPT)	43	850-0050	13	*Washer, Lock - Spring (3/8")
10	504-0003	1	Cock, Drain (1/4 NPT)	44	520-0564	13	*Stud
11	505-0018	1	Bushing, Reducer - Hex (1/2 NPT x 1/4 NPT)	45	802-0072	2	*Screw, Cap - Socket Head (3/8-16 x 1")
12	505-0108	1	Tee, Pipe (1/2 NPT)	46	850-0050	2	*Washer, Lock - Spring (3/8")
13	110-0576	1	Adapter, Hose - Hex	47	145-0120	1	*Adapter, Carburetor Mounting
14	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)	48	154-1296	1	*Gasket, Carburetor
15	505-0021	2	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	49	154-1297	1	*Gasket, Rear Manifold
16	309-0241	1	Valve, Regulating - Temperature	50	154-1298	1	*Gasket, Center Manifold
17	505-0324	1	Nipple, Pipe - Half (3/4 NPT x 2"LG)	51	154-1299	1	*Gasket, Front Manifold
18	505-0051	1	Elbow, Pipe - 90 DEG (3/4 NPT)	52	148-0274	1	*Gasket, Manifold End
19	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)	53	800-0007	2	Bracket
20	505-0289	2	Bushing, Reducer - Hex (1-1/2 NPT x 3/4 NPT)	54	850-0040	2	Screw, Cap - Hex Head (1/4-20 x 1")
21	800-0005	1	Screw, Cap - Hex Head (1/4-20 x 3/4")	55	862-0001	2	Washer, Lock - Spring (1/4")
22	850-0040	1	Washer, Lock - Spring (1/4")	56	110-0526	1	Nut, Hex (1/4-20)
23	862-0001	1	Nut, Hex (1/4-20)	57	821-0014	6	Bracket and Nipple Assembly
24	130-0757	1	Bracket, Support - Pipe	58	130-0499	1	Screw, Self-locking - Hex
25	130-0522	1	Clamp, Loop	59	800-0069	2	Washer Head (5/16-18 x 5/8")
26	505-0032	1	Coupling, Pipe (1-1/2 NPT)	60	850-0055	2	Plate, Mounting
27	505-0642	1	Nipple, Pipe (1-1/2 NPT x 2-1/2"LG)	61	130-4099	1	Screw, Cap - Hex Head (7/16-14 x 3/4")
28	505-0317	1	Tee, Pipe (1-1/2 NPT)	62	812-0079	1	Washer, Lock - Spring (7/16")
29	505-0385	1	Nipple, Pipe - Half (1-1/2 NPT x 2"LG)	63	850-0025	1	Guard, Belt
30	104-0091	3	Nut, Hex (3/8-24)	64	860-0008	1	Screw, Machine - Round Head
31	850-0050	3	Washer, Lock - Spring (3/8")	65	332-0050	1	(#8-32 x 1/2")
32	526-0030	3	Washer, Flat (3/8")	66	800-0052	1	Washer, Lock - Spring (#8)
33	520-0238	2	Stud				Nut, Hex (#8-32)
34	505-0271	1	Nipple, Pipe (1/4 NPT x 3-1/2"LG)				Clamp, Loop
							Screw, Cap - Hex Head (3/8-16 x 1-1/2")
							* - Parts Included with Manifold.

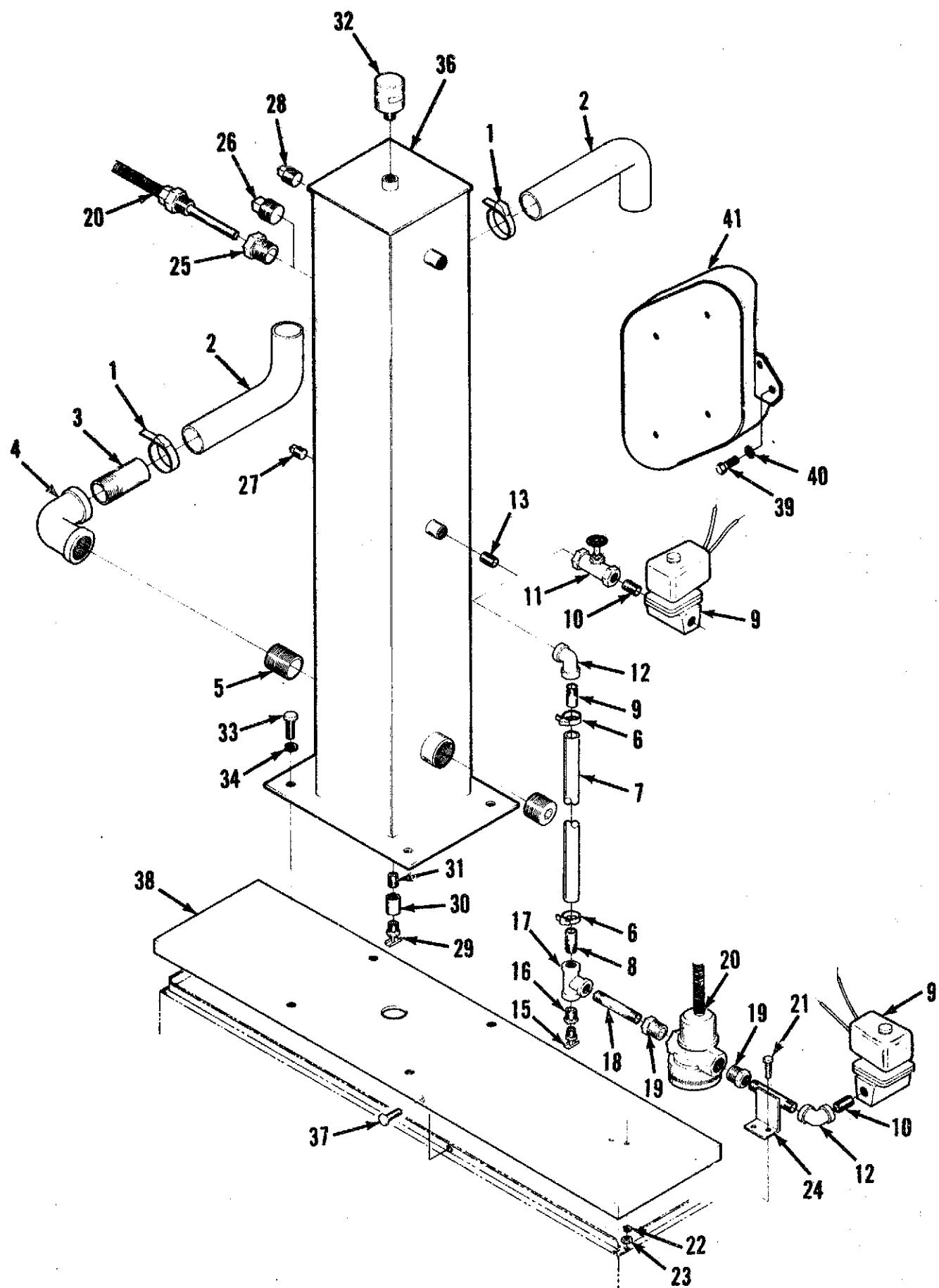
# City Water and Heat Exchanger Cooling System



# City Water and Heat Exchanger Cooling System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0365	4	Clamp, Hose	20	130-1340	1	Pencil, Zinc
3	503-0491	1	Hose - Preformed	21	505-0140	1	Plug, Pipe - Square Head (1 NPT)
4	503-0490	1	Hose - Preformed	22	505-0129	1	Bushing, Reducer - Hex (1 NPT x 3/4 NPT)
5	505-0444	1	Nipple, Pipe - Half (1-1/2 NPT x 2-1/4"LG)	23	800-3004	4	Screw, Cap - Hex Head (1/4-20 x 5/8")
6	504-0003	1	Cock, Drain (1/4 NPT)	24	850-0040	4	Washer, Lock - Spring (1/4")
7	505-0426	1	Bushing, Reducer - Hex (1-1/2 NPT x 1/4 NPT)	25	862-0001	1	Nut, Hex (1/4-20)
8	505-0317	1	Tee, Pipe (1-1/2 NPT)	26	130-0802	2	Strap, Retaining
9	505-0642	1	Nipple, Pipe - Half (1-1/2 NPT x 4"LG)	27	130-0796	1	Exchanger, Heat (Includes Cap)
10	505-0462	1	Elbow, Pipe - Street, 90 DEG (1-1/2 NPT)	28	130-0661	1	Cap, Radiator
11	504-0019	1	Valve, Globe (1/2 NPT)	29	800-0026	9	Screw, Cap - Hex head (5/16-18 x 3/4")
12	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	30	850-0045	9	Washer, Lock - Spring (5/16")
13	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)	31	862-0015	9	Nut, Hex (5/16-18)
14	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	32	130-0819	1	Bracket, Mounting
15	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	33	130-0828	1	Plate, Mounting - Housed Set
16	309-U241	1	Valve, Regulating - Temperature	34	130-0805	1	Plate, Mounting - Unhoused Set
17	505-0102	1	Nipple, Pipe - Close (3/4 NPT x 1-3/8"LG)	35	800-0069	2	Screw, Cap - Hex Head (7/16-14 x 3/4")
18	505-0691	1	Elbow, Pipe - Street, 45 DEG (3/4 NPT)	36	850-0055	2	Washer, Lock - Spring (7/16")
19	505-0130	1	Plug, Pipe - Square Head (3/4 NPT)	37	130-4099	1	Guard, Belt
				38	504-0005	1	Cock, Drain (1/8 NPT) Begin Spec R (Not Illustrated)
				39	504-0028	1	Cock, Drain (1/4 NPT)
				40	505-0098	1	Nipple, Close (1/4 NPT)
				41	505-0184	1	Tee, Pipe (1/4 NPT)
				42	895-0296-01	1	Tubing, Glass Fiber(Not Shown)

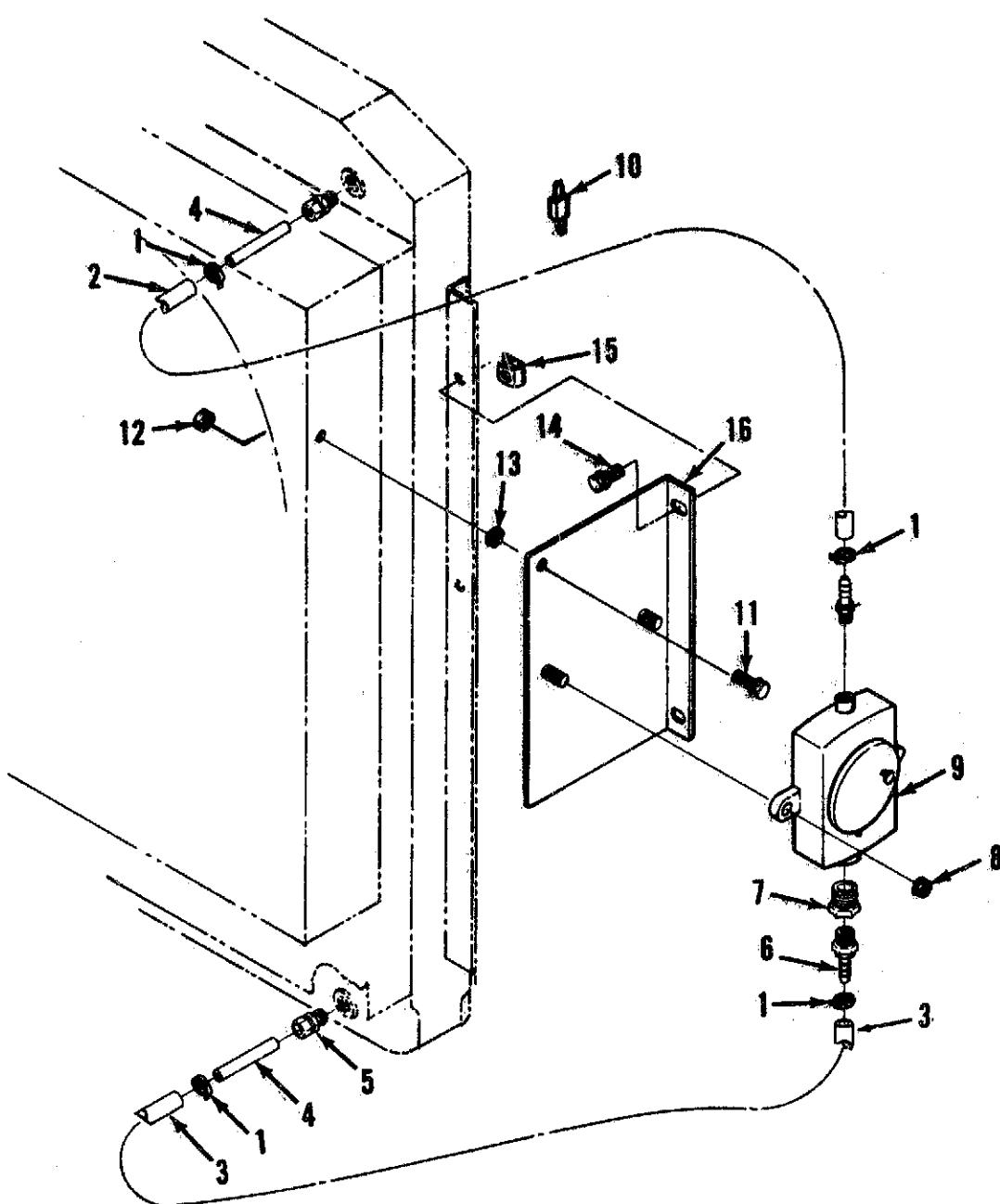
## City Water and Standpipe Cooling System



## City Water and Standpipe Cooling System

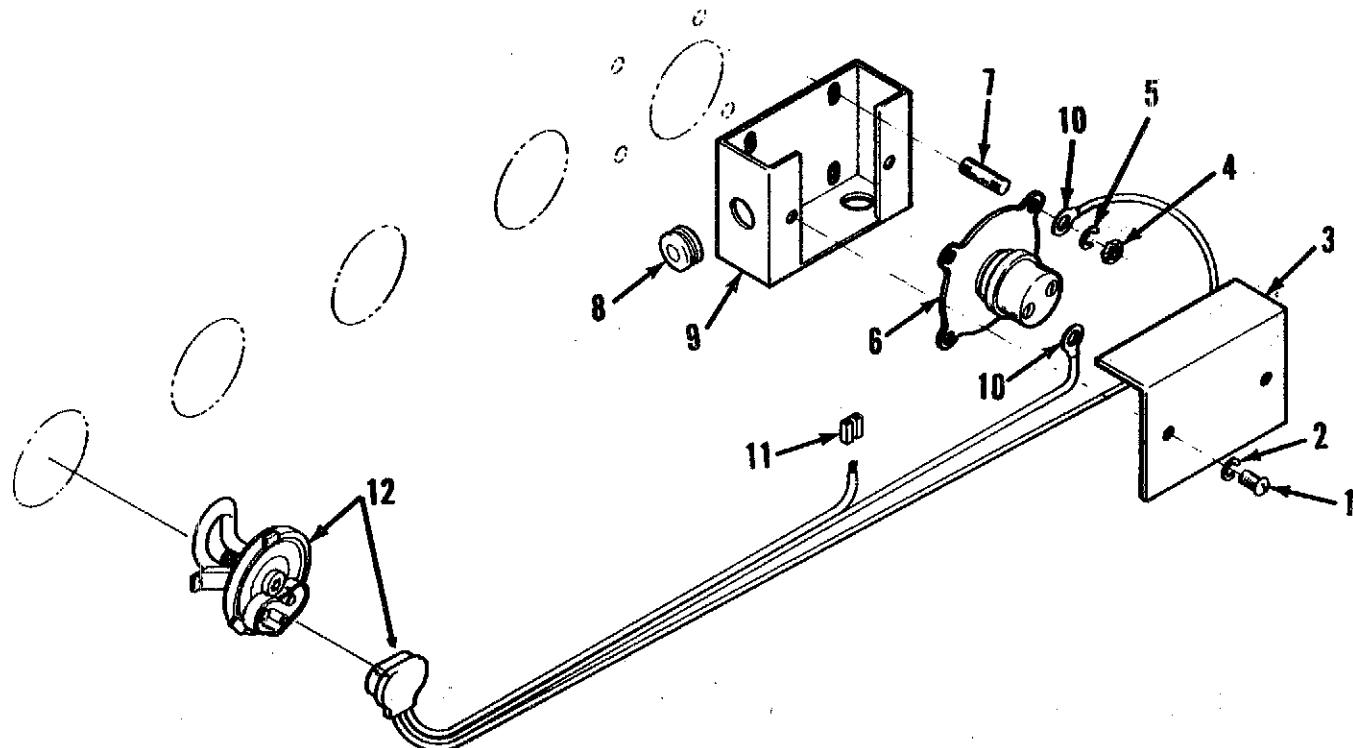
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0365	4	Clamp, Hose Hose - Preformed	20	309-0241	1	Valve, Regulating - Temperature
2	503-0490	1	Lower	21	800-0027	2	Screw, Cap - Hex Head (5/16-18 x 7/8")
	503-0491	1	Upper	22	850-0045	2	Washer, Lock - Spring (5/16")
3	505-0385	1	Nipple, Pipe - Half (1-1/2 NPT x 2"LG)	23	862-0015	2	Nut, Hex (5/16-18)
4	505-0183	1	Elbow, Pipe - 90 DEG, Reducing (1-1/2 NPT x 1/1/4 NPT)	24	110-0526	1	Bracket and Nipple Assembly
5	505-0258	1	Nipple, Pipe (1-1/4 NPT x 3"LG)	25	505-0129	1	Bushing, Reducer - Hex (1 NPT x 3/4 NPT)
6	503-0189	2	Clamp, Hose	26	505-0140	1	Plug, Pipe - Square Head (1 NPT)
7	503-0437	1	Hose	27	505-0056	1	Plug, Pipe - Square Head (1/2 NPT)
8	502-1031	2	Nipple, Pipe - Half (1/2 NPT x 2" Long)	28	505-0130	2	Plug, Pipe - Square Head (3/4 NPT)
9	307-0833	1	Valve, Solenoid - 12 VDC (1/2 NPT)	29	504-0028	1	Cock, Drain (3/8 NPT)
10	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	30	505-0028	1	Coupling, Pipe (3/8 NPT)
11	504-0019	1	Valve, Globe (1/2 NPT)	31	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1"LG)
12	505-0040	2	Elbow, Pipe - 90 DEG (1/2 NPT)	32	504-0062	1	Valve, Relief - Vacuum
13	505-0100	1	Nipple, Pipe - Close (1/2 NPT x 1-1/8"LG)	33	800-0048	4	Screw, Cap - Hex Head (3/8-16 x 3/4")
14	505-0949	1	Plug, Pipe - Socket Head (1-1/4 NPT)	34	850-0050	4	Washer, Lock - Spring (3/8")
15	504-0028	1	Cock, Drain (3/8 NPT)	36	130-0659	1	Standpipe
16	505-0019	1	Bushing, Reducer - Hex (1/2 NPT x 3/8 NPT)	37	821-0018	6	Screw, Self-locking - Hex Washer Head (1/4-20 x 5/8")
17	505-0108	1	Tee, Pipe (1/2 NPT)	38	130-0636	1	Plate, Mounting
18	505-0002	1	Nipple, Pipe (1/2 NPT x 3"LG)	39	800-0069	2	Screw, Cap - Hex Head (7/16-14 x 3/4")
19	505-0021	1	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)	40	850-0055	2	Washer, Lock - Spring (7/16")
				41	130-4099	1	Guard, Belt

## Low Water Level Switch



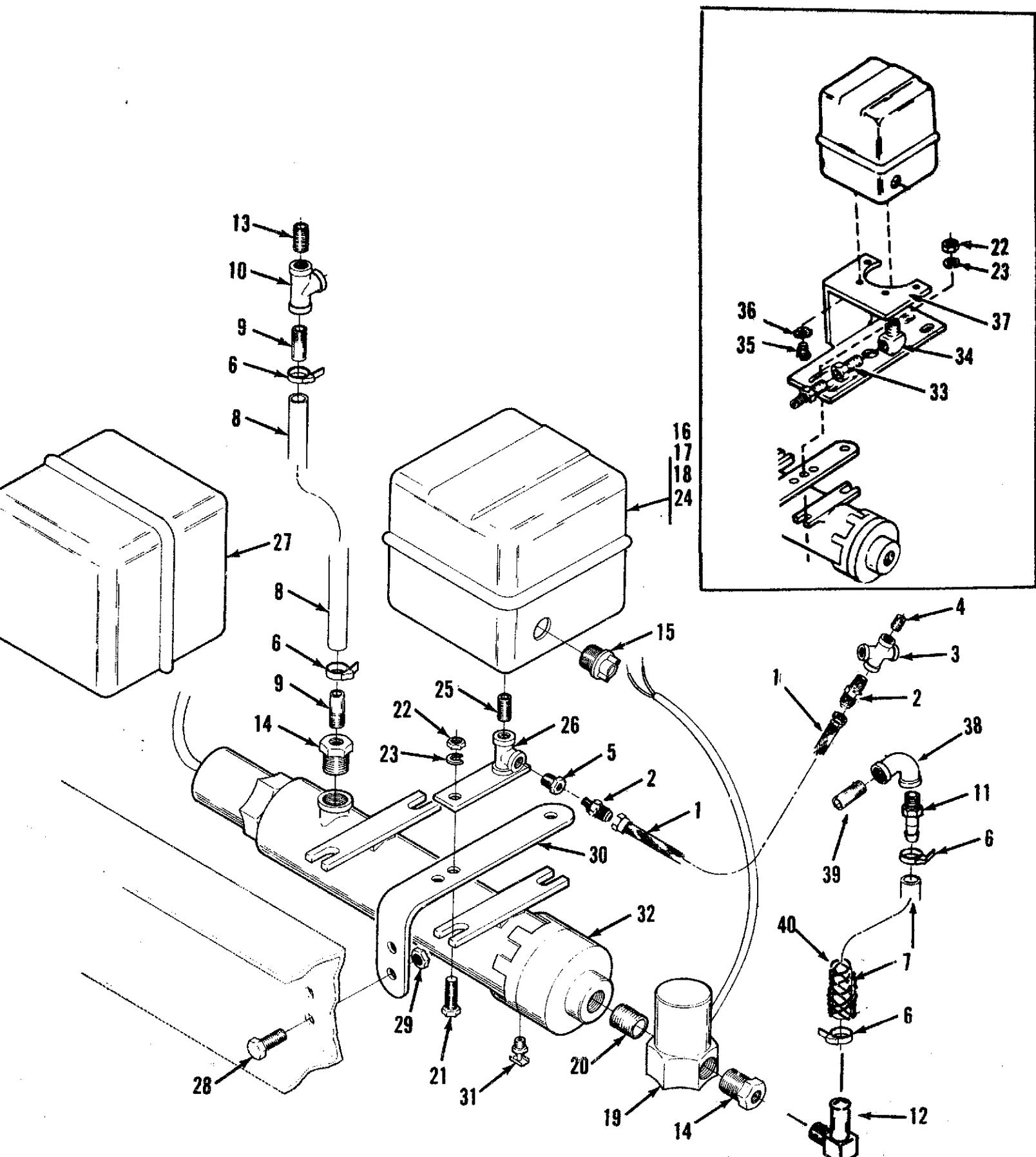
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-0685	4	Clamp, Hose	10	357-0030	2	Diode
2	503-1418	1	Hose, 1/4" x 10"	11	821-0015	1	Screw, Self-locking - Hex Washer Head (1/4-20 x 3/4")
3	503-1418	1	Hose, 1/4" x 18"	12	870-0212	1	Nut, Self-locking - Hex Washer Head (1/4-20)
4	130-2053	2	Tube (1/4" OD x 2" LG) (Copper)	13	526-0018	2	Washer, Flat (1/4")
6	502-0801	2	Connector, Hose	14	821-0014	2	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
7			Bushing, Reducer - Hex	15	870-0113	2	Nut, Retainer (5/16-18)
505-0802	1	1" NPT x 1/4" NPT - Specs C-P		16	405-4659	1	Plate, Mounting
502-0029-04	1	1/2" NPT x 1/4" NPT - Begin Spec R					
8	870-0212	2	Nut, Self-locking - Hex Washer Head (1/4-20)				
9			Switch, Level - Water				
193-0329	1	1	Specs C-P				
193-0292	1	1	Begin Spec R				

## Water Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0076	2	Screw, Machine - Round Head (#8-32 x 5/16")	7	520-0446	2	Stud #10-32 x 3/4"
2	850-0025	2	Washer, Lock - Spring (#8)				For 120 Volt Application
3	333-0013	1	Cover, Box For 120 Volt Application	520-0672	2	#10-32 x 1"	For 240 Volt Application
4	333-0056	1	For 240 Volt Application	8	508-0008	2	Grommet
5	870-0053	2	Nut, Hex (#10-32)	9	333-0012	1	Box For 120 Volt Application
6	850-0030	2	Washer, Lock - Spring (#10)		333-0057	1	For 240 Volt Application
7	309-0106	1	Switch, Thermostatic 120 Volt, 25 Amp, SPST	10	332-0014	2	Terminal
8	309-0256	1	120/240 Volt, 25-40 Amp, DPST	11	323-0957	1	Nut, Wire
				12	333-0118	1	Heater, Electrical (Includes Plug-in Cable)

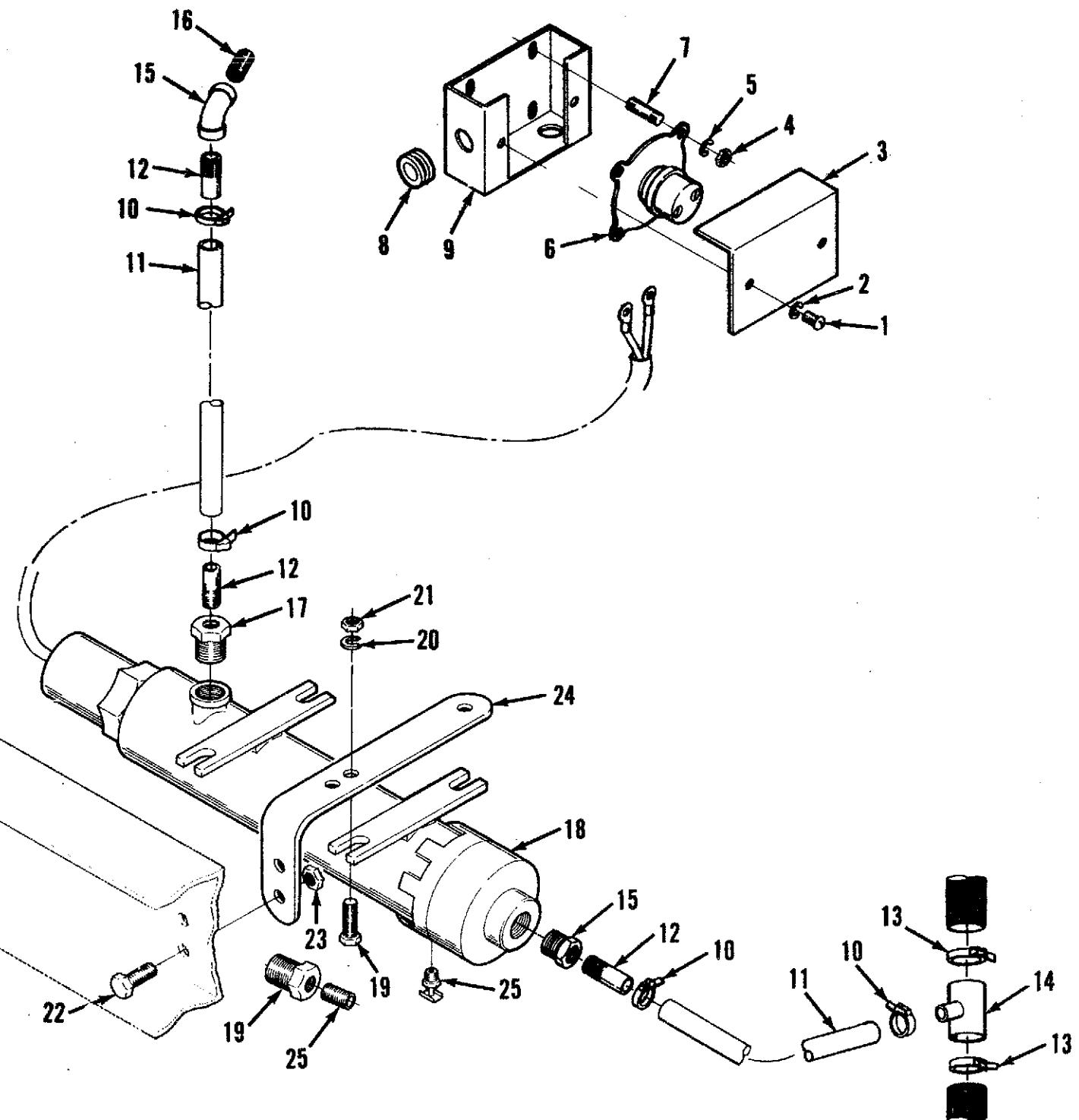
## Water Heater



## Water Heater

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0199	1	Line, Fuel - Flexible	27			Contactor, Electrical
2	502-0193	2	Connector, Tube to Pipe	307-1460	1		230 VAC, 3 Pole
3	505-0763	1	Cross, Pipe (1/8 NPT)	307-1164	1		460 VAC, 3 Pole
4	505-0098	1	Nipple, Pipe - Close (1/8 NPT x 3/4"LG)	28	821-0016	4	Screw, Self-Locking - Hex Washer Head (5/16-18 x 3/4")
5	505-0007	1	Bushing, Redcer - Hex (1/4 NPT x 1/8 NPT)	29	870-0257	4	Nut, Self-Locking - Hex Washer Head (5/16-18)
6	503-0183	4	Clamp, Hose	30	130-1192	2	Bracket, Mounting
7	503-0710	1	Hose, Rubber 5/8" x 22"LG	31	504-0003	1	Cock, Drain (1/4 NPT)
8	503-0113	1	Hose, Heater 5/8" x 16"LG	32			Heater, Electrical - 1500 Watt 1 Phase
9	505-0135	2	Nipple, Pipe - Half (3/8 NPT x 1-1/2"LG)	333-0093	1		115 VAC
10	505-0060	1	Tee, Pipe (3/8 NPT)	333-0177	1		208 VAC
11	502-0613	1	Adapter, Pipe to Hose (1/4 NPT)	333-0162	1		240 VAC
12	502-0942	1	Elbow, Pipe - 90 DEG (3/8 NPT) Beaded	333-0168	1		480 VAC 3 Phase
13	505-0101	1	Nipple, Pipe - Close (3/8 NPT x 1"LG)	333-0171	1		208 VAC
14	505-0455	2	Bushing, Reducer - Hex (1 NPT x 3/8 NPT)	333-0178	1		380 VAC
15	331-0027	2	Connector, Cable	333-0173	1		480 VAC
16	332-0014	2	Terminal, Ring (#10)	33	505-0007	1	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)
17	332-0149	4	Terminal, Ring (#8)	34	502-0054	1	<b>Begin 1983</b> Elbow, Pipe - Street, 90 DEG Brass (1/4 NPT)
	332-0807	4	Terminal, Ring (Not Shown)	35	812-0079	4	<b>Begin 1983</b> Screw, Machine - Round Head (#8-32 x 1/2")
18	323-0957	5	Nut, Wire	36	850-0025	4	<b>Begin 1983</b> Washer, Lock - ET (#8)
19	309-0304	1	Switch, Thermostatic	37	333-0224	1	<b>Begin 1983</b> Bracket, Support
20	505-0004	1	Nipple, Pipe - Close (1 NPT x 1-1/4"LG)	38	505-0038	1	<b>Begin 1983</b> Elbow, Pipe - 90 DEG
21	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")	39	505-0099	1	Nipple, Pipe - Close 1/4 NPT
22	862-0001	4	Nut, Hex (1/4-20)	40	895-0295-01	AR	Tubing, Fiberglass - 2 Foot Lengths
23	850-0040	4	Washer, Lock - Spring (1/4")				
24	309-0307	1	Switch, Pressure				
25	505-0099	1	Nipple, Pipe - Close (1/4 NPT x 7/8"LG) 1970 thru 1982				
26	333-0142	1	Support with Tee 1970 Thru 1982				

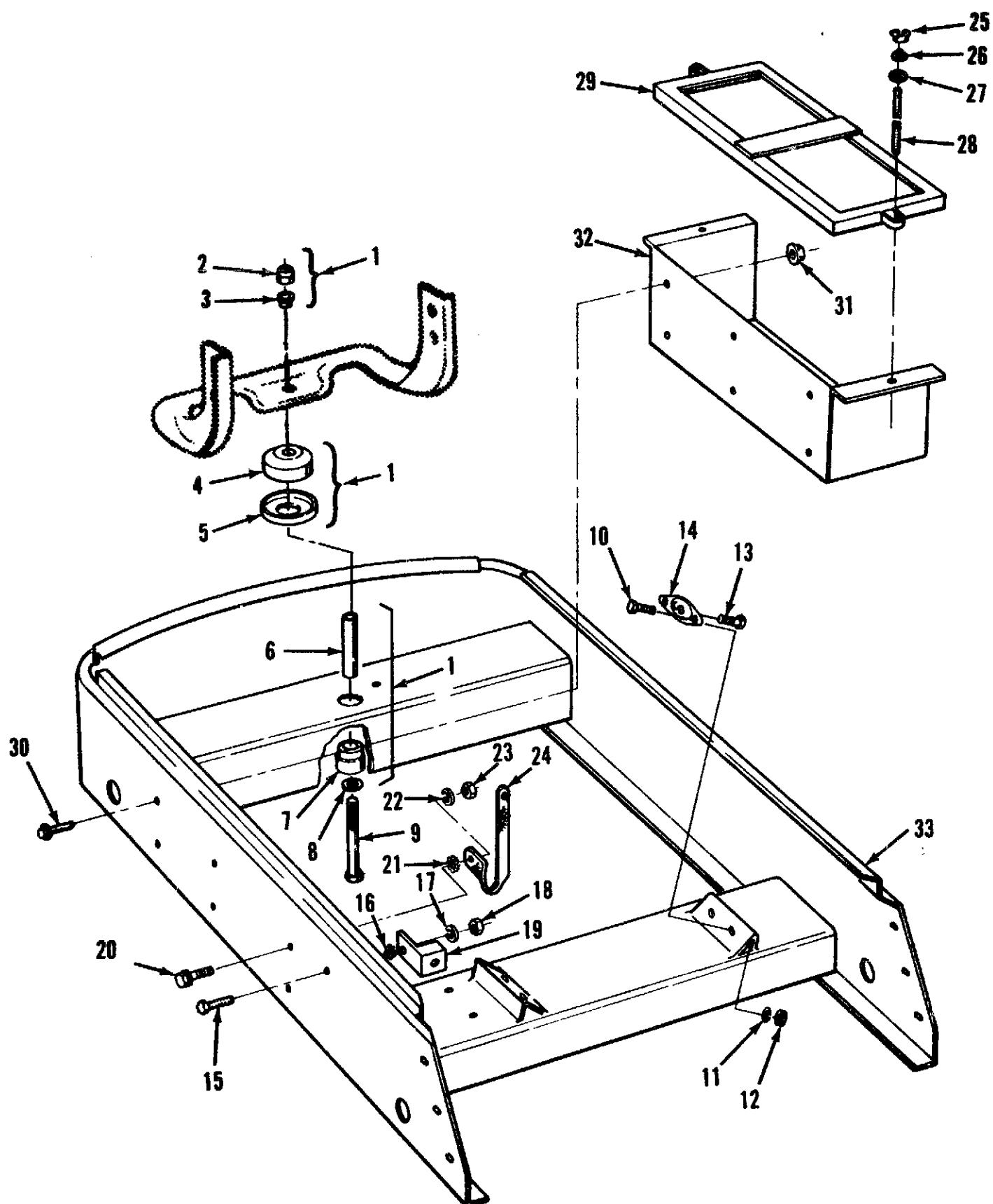
## Water Heater



## Water Heater

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0076	2	Screw, Machine - Round Head (#8-32 x 5/16")	13	503-0311	2	Clamp, Hose
2	850-0025	2	Washer, Lock - Spring (#8)	14	503-0517	1	Adapter, Hose
3			Cover, Box	15	505-0190	1	Elbow, Pipe - 45 DEG (1/2 NPT)
	333-0013	1	For 120 Volt Application	16	505-0106	1	Nipple, Pipe - Close (1/2 NPT x 1-1/2")
	333-0056	1	For 240 Volt Application	17	505-0021	2	Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)
4	870-0053	2	Nut, Hex (#10-32)	18			Heater, Electrical
5	850-0030	2	Washer, Lock - Spring (#10)		333-0093	1	1500 Watt, 120 VAC, 1 Phase
6			Switch, Thermostatic		333-0177	1	1500 Watt, 208 VAC, 1 Phase
	309-0106	1	120 VAC, 25 AMP, SPST		333-0171	1	1500 Watt, 208 VAC, 3 Phase
	309-0256	1	120/250 VAC, 40-25 AMP, DPST		333-0162	1	1500 Watt, 240 VAC 1 Phase
7			Stud	19	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")
	520-0446	2	#10-32 x 3/4"	20	862-0001	4	Nut, Hex (1/4-20)
	520-0672	2	#10-32 x 1"	21	850-0040	4	Washer, Lock - Spring (1/4")
8	508-0008	2	Grommet	22	821-0018	4	Screw, Self-Locking - Hex
9			Box, Thermostat				Washer Head (5/16-18 x 3/4")
	333-0012	1	For 120 Volt Application	23	870-0257	4	Nut, Self-Locking - hex
	333-0057	1	For 240 Volt Application				Washer, Head (5/16-18)
10	503-0189	4	Clamp, Hose	24	130-1192	2	Bracket, Mounting
11	503-0833	AR	Hose, Rubber - 24" Long	25	504-0003	1	Cock, Drain (1/4 NPT)
12	502-1031	3	Nipple, Pipe - Half (1/2 NPT x 2" Long)				

## Chassis

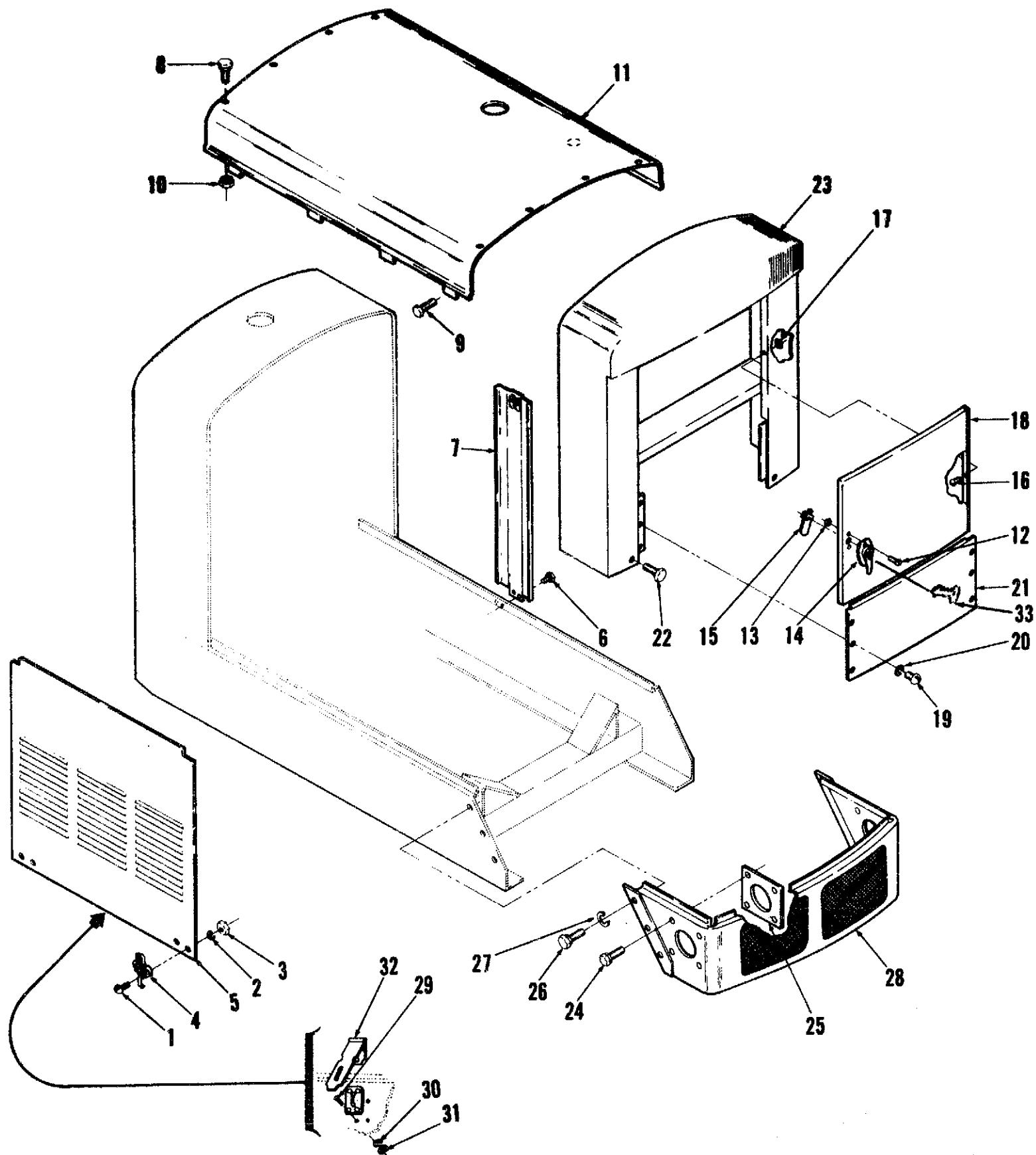


## Chassis

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	402-0338	1	Mount, Vibration (Includes Parts Marked *)	18	862-0015	1	Nut, Hex (5/16-18)
2	870-0068	1	*Nut, Self-locking - Hex (7/16-20)	19	332-1473	1	Lug
3	402-0337	1	*Spacer	20	800-0091	1	Screw, Cap - Hex Head (1/2-13 x 1-1/4"LG)
4	402-0010	1	*Mount	21	850-0060	1	Washer, Lock - Spring (1/2")
5	402-0012	1	*Cup, Metal	22	856-0013	1	Washer, Lock - ET/IT (1/2")
6	402-0011	1	*Mount	23	862-0018	1	Nut, Hex (1/2-13)
7	403-0633	1	*Spacer	24	337-0090	1	Strap, Electrical - Ground
8	526-0141	1	*Washer, Flat (7/16")	25	865-0007	2	Nut, Wing (5/16-18)
9	801-0080	1	*Screw, Cap - Hex Head (7/16-20 x 3-1/2")	26	850-0045	2	Washer, Lock - Spring (5/16")
10	800-0071	4	Screw, Cap - Hex Head (7/16-14 x 1")	27	526-0115	2	Washer, Flat (5/16")
11	850-0055	4	Washer, Lock - Spring (7/16")	28	520-0663	2	Stud
12	862-0004	4	Nut, Hex (7/16-14)	29	416-0612	1	Frame, Hold-down - Battery Used Thru 4-90
13	800-0520	2	Screw, Cap - Hex Head (3/4-10 x 1")	30	821-0029	3	Use Beginning 5-90
14	402-0030	2	Mount, Vibration	31	870-0281	3	Screw, Self-locking - Hex Washer Head (3/8-16 x 3/4")
15	800-0029	1	Screw, Cap - Hex Head (5/16-18 x 1")	32	416-0687	1	Nut, Self-locking - Hex Washer Head (3/8-16)
16	856-0008	1	Washer, Lock - ET/IT (5/16")	33	403-0902	1	Tray - Battery
17	850-0045	1	Washer, Lock - Spring (5/16")				Chassis

\* - Parts Included with Vibration Mount.

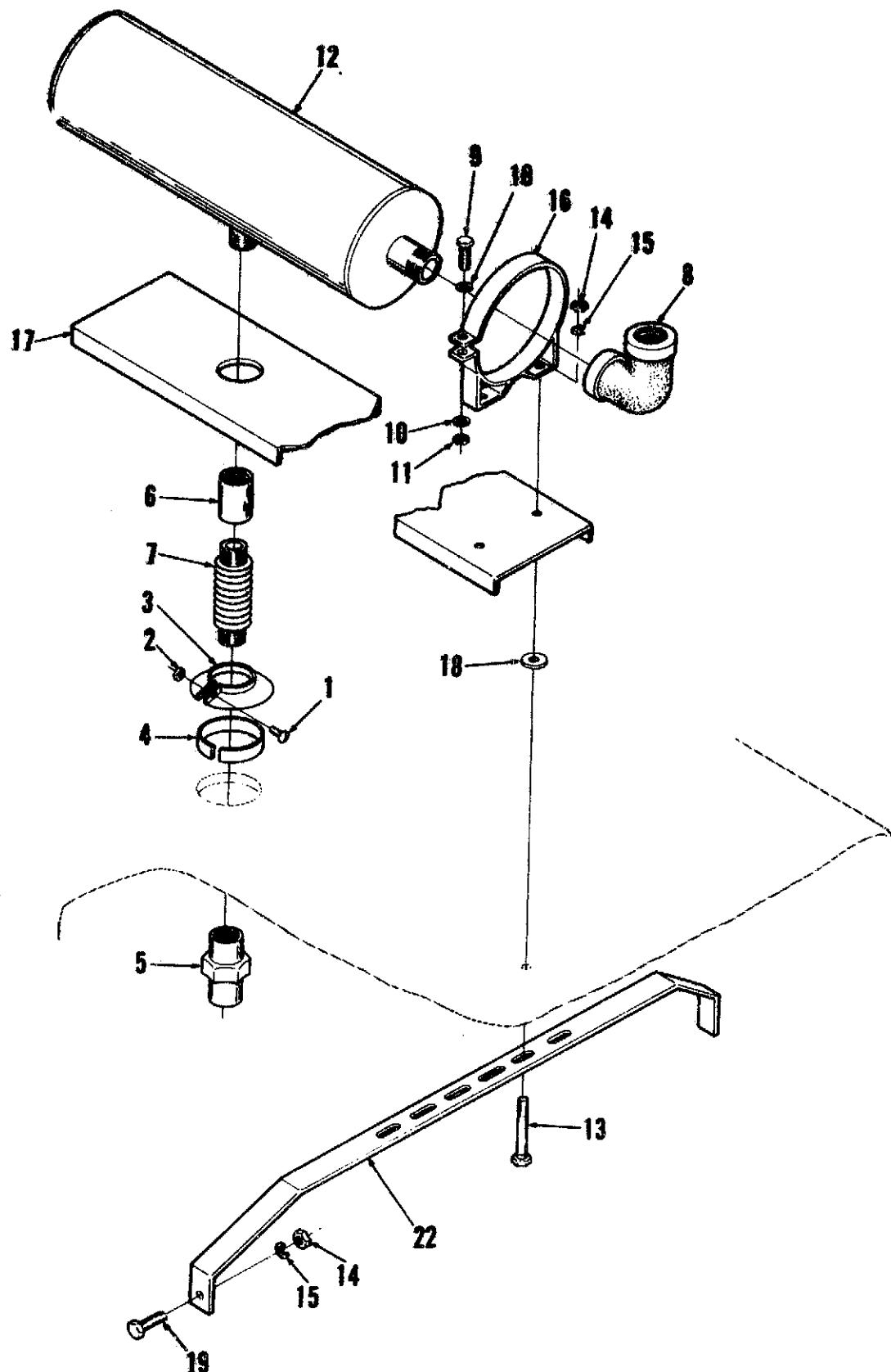
## Set Housing



## Set Housing

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0098	16	Screw, Machine - Round Head (#10-32 x 3/8")	17	870-0106	3	Nut, Speed (1/4")
2	850-0030	16	Washer, Lock - Spring (#10)	18	405-1777	1	Door, Access - Rear
3	870-0053	16	Nut, Hex (#10-32)	19	813-0098	6	Screw, Machine - Round Head (#10-32 x 3/8")
4	406-0105	8	Clamp, Door	20	850-0030	6	Washer, lock - Spring (#10)
5	405-1808	4	Door, Access (Less Latches)	21	405-1780	1	Panel, Accees - Rear
6	821-0014	8	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")	22	821-0014	8	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
7	405-1814	2	Support, Housing - Center	23		1	Panel, Housing - Rear
8	821-0014	12	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")	405-1812		1	Spec C-P
9	821-0016	4	Screw, Self-locking - Hex Washer Head (5/16-18 x 3/4")	405-2084		1	Begin Spec R
10	870-0113	12	Nut, Clinch (5/16-18)	24	821-0010	8	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
11			Panel, Housing - Top	25	403-0895	2	Cover
	405-1809	1	Dry Exhaust Manifold Set	26	800-0048	6	Screw, Cap - Hex Head (3/8-16 x 3/4")
	405-1835	1	Wet Exhaust Manifold Set	27	850-0050	6	Washer, lock - Spring (3/8")
12	812-0149	2	Screw, Machine - Round Head (1/4-20 x 9/16")	28	403-0894	1	Chassis - Rear
13	870-0232	2	Nut, Self-locking - Hex with ET Lock Washer (1/4-20)	29	814-0079	28	Screw, Machine - Flat Head (#8-32 x 1/2")
14	406-0157	1	Handle, Latch (Includes Keys)	30	850-0025	28	Washer, Lock - Spring (#8)
15	406-0089	1	Catch, Latch	31	860-0008	28	Nut, Hex (#8-32)
16	809-0059	3	Screw, Tapping - Round Head (1/4 x 1/2")	32	406-0249	4	Set, Hasp
				33	406-0565	1	Key

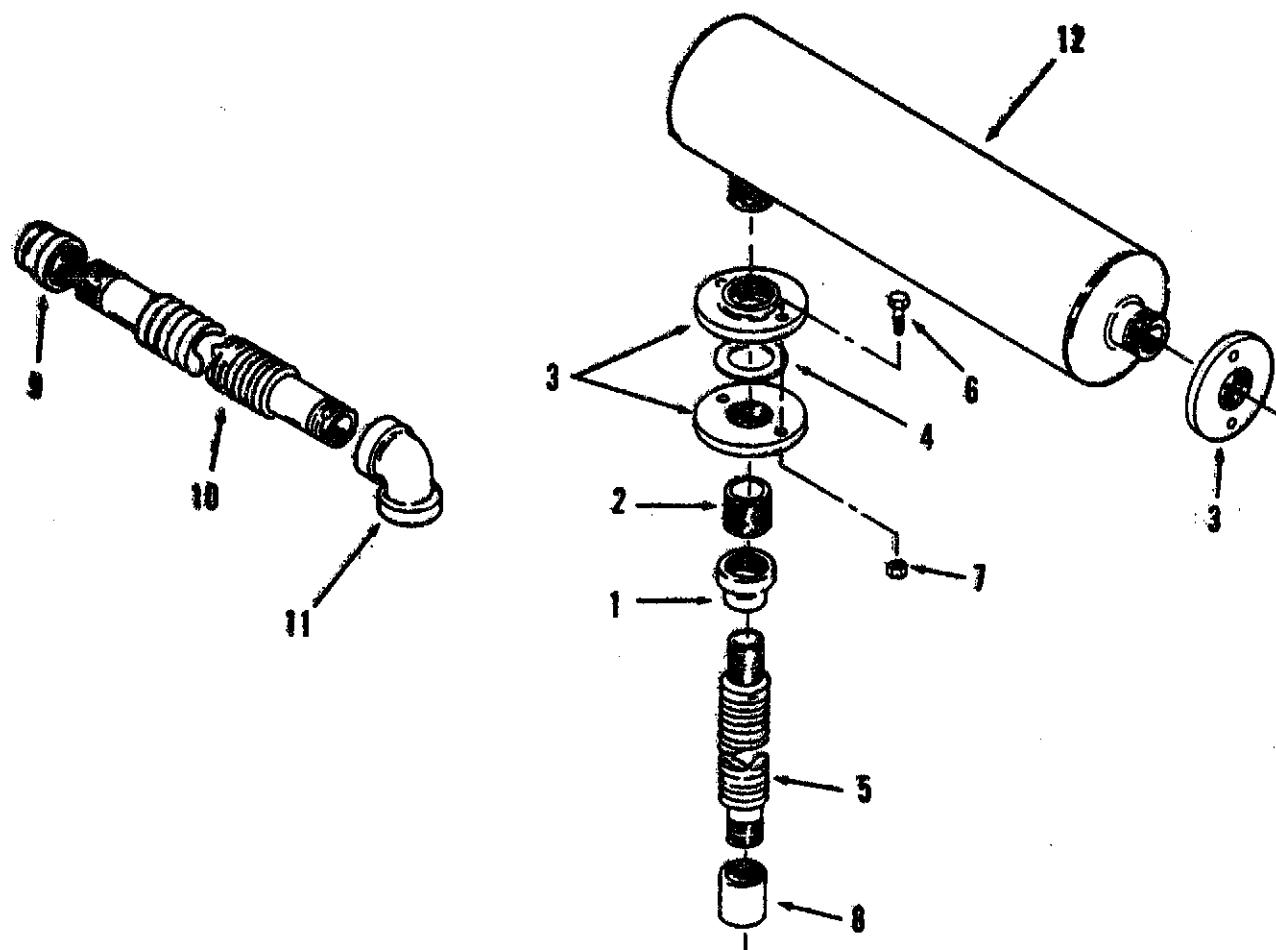
**Exhaust Muffler  
"EK Spec A,B - EM Spec C-U"**



**Exhaust Muffler**  
**"EK Spec A,B - EM Spec C-U"**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION	
1	813-0105	2	Screw, Machine - Round Head (#10-32 x 1")	13	800-0028	4	Screw, Cap - Hex Head 5/16-18 x 1"	
2	870-0188	2	Nut, Self-locking - Hex Washer Head (#10-32)	14	870-0048	4	5/16-18 x 3" - Begin Spec S Nut, Self-locking - Hex (5/16-18)	
3	155-1420	1	Shield, Rain	15	850-0045	4	Washer, Lock - Spring (5/16")	
4	895-0157	1	Strip, Asbestos	16			Band, Mounting	
5	505-0454	1	Union, Pipe (2 NPT)	17	140-0649	2	Steel Band	
6	505-0203	1	Coupling, Pipe (2 NPT)		140-1588	2	Stainless Steel	
7	155-1593	1	Tube, Exhaust - Flexible (12")		17	155-0978	1	Shield, Heat
8	505-0453	1	Elbow, Pipe - 90 DEG (3 NPT)		155-1644	1	Painted Aluminum Silicon	
9	800-0035	3	Screw, Cap - Hex Head (5/16-18 x 2-1/2")		18	155-1430	1	Stainless Steel
10	526-0113	6	Washer, Flat (5/16")		19	800-0028	4	Spacer
11	870-0257	3	Nut, Self-locking - Hex Washer Head (5/16-18)		20	155-1634	1	Screw, Cap - Hex Head (5/16-18 x 1")
12	155-0988	1	Muffler, Exhaust Painted with Black Silicon Paint		21	813-0307	2	Shield, Rain - Begin Spec S
	155-1512	1	Stainless Steel		22	155-0789	2	Screw, RHM (10-32 x 1")
					23	870-0054	2	Bracket, Support
							Nut, Lock (10-32)	

**Muffler**  
**(EK Begin Spec C - EM Begin Spec V)**

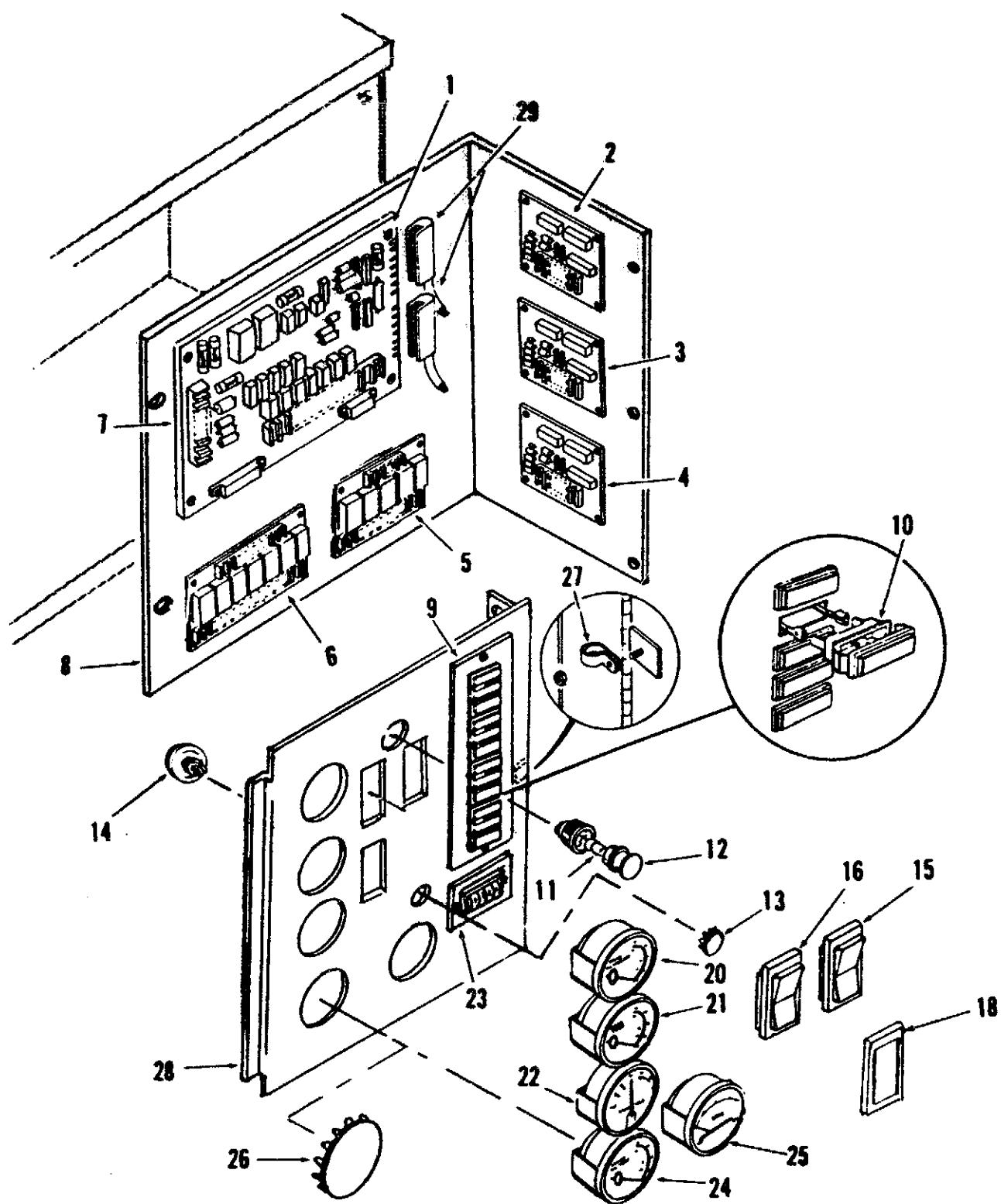


**Muffler**  
**(EK Begin Spec C - EM Begin Spec V)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	505-0111	1	Coupling, Reducer (2.00x2.50)	8	505-0203	1	Coupling, Pipe
2	505-0103	1	Nipple, Pipe	9	505-0111	1	*Coupling, Reducer (2.00x2.50)
3	155-0899	3	Flange, Companion	10	155-0776-01	1	*Tube Assembly
4	155-0898	1	Gasket, Flange - Companion	11	505-0044	1	*Elbow, Pipe - 90° (2-1/2"NPT)
5	155-0775	1	Tube Assembly	12			Muffler
6	800-0135	4	Screw, Cap - Hex Head (5/8-11 x 2.25")		155-2341-08	1	Residential
7	862-0007	4	Nut, Hex (5/8-11)		155-2340-08	1	Industrial
					155-2342-08	1	Critical

\*For end inlet applications - Use other for side inlet applications.

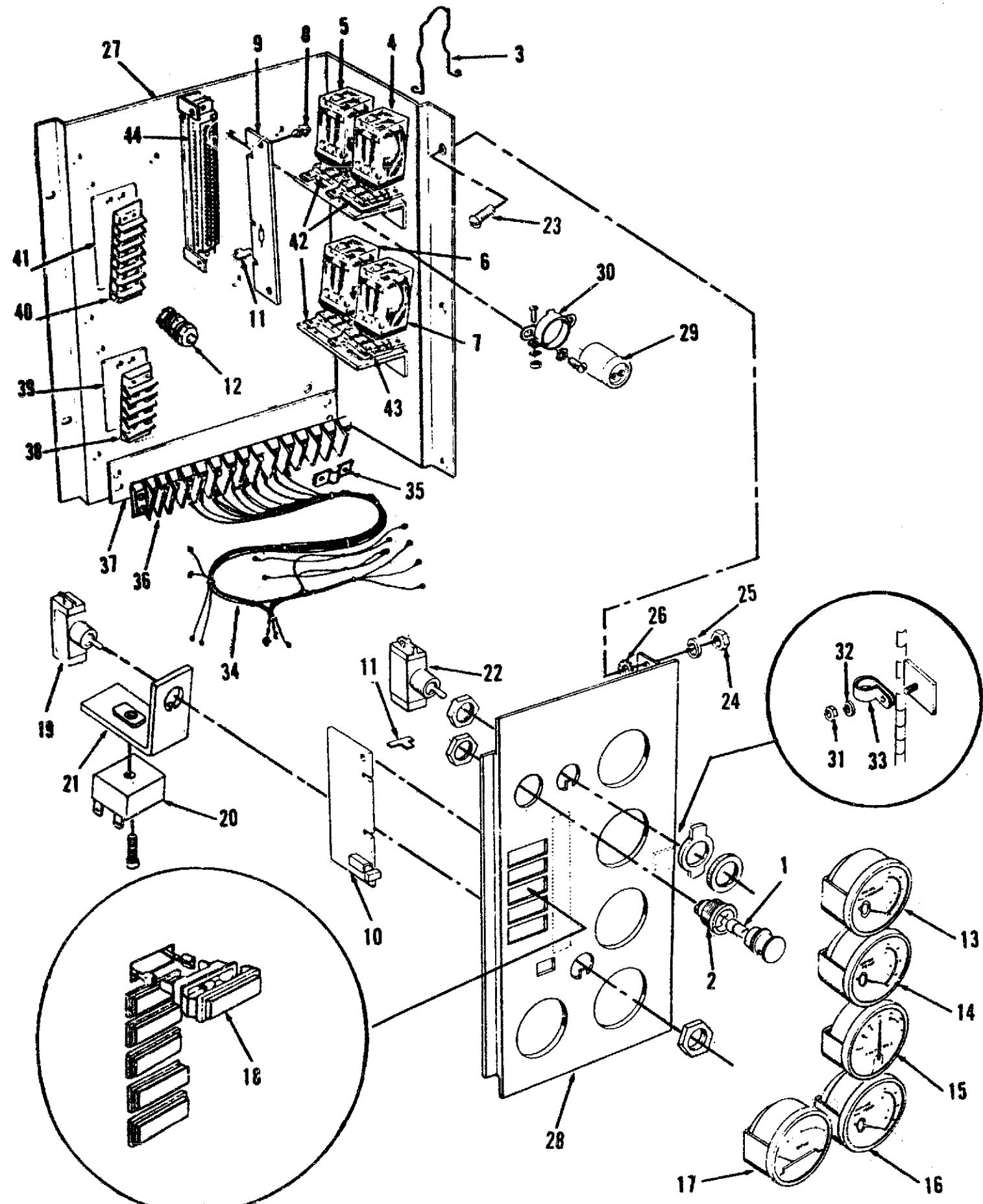
**Engine Control - Begin Spec P**



## Engine Control - Begin Spec P, Begin Spec A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	24	Screw, Machine - Round Head With IT Lock Washer (#6-32 x 1/2")	11	322-0004	1	Lamp, Incandescent - 14 VDC DS11
2	300-2897	1	Board - Time Delay, Start/Stop - 12 VDC A15	12	322-0361	1	Holder, Lamp
3			Board - Magnetic Sensor, Start Disconnect/Over Speed Sensor A16	13	517-0131	1	Plug, Button
	300-2901	1	Standard	14	151-0402	1	Potentiometer - Speed Control R11
	300-2902	1	Precision				Switch, Push - Reset/Panel Lamp S11
4	300-2905	1	Board - Over-Under Voltage Sensor - 12 VDC A17	15			Through Spec R
5	300-2855	1	Board - 5 Relay 12 VDC A13	308-0785	1		Spec S
6	300-2862	1	Board - 7 Relay 12 VDC A14	308-0892	1		Switch, Push - Run/Stop/ Remote S12
7			Board - Engine Monitor 12 VDC A11	16	308-0784	1	Screw, Round Head - Begin Spec T (6-32 x 1/2")
	300-2807	1	2 Light	17	812-0063	8	Cover - Switch
	300-2809	1	7 Light	18	301-6257	1	Mounting Hole
	300-2811	1	12 Light	19	193-0388	1	Sender, Oil Temperature
	321-0270	2	Fuse, Cartridge - 20 Amp F1, F2	20	193-0352	1	Gauge, Pressure - Oil M11
	321-0231	1	Fuse, Cartridge - 15 Amp F3	21	193-0351	1	Gauge, Temperature - Water M12
	321-0094	2	Fuse, Cartridge - 5 Amp F4, F5	22			Meter
8	301-8851	1	Bracket, Mounting	302-1790	1		Ampere - DC M13
	821-0004	4	Screw, Self-locking - Hex Washer Head (#10-32 x 5/16")	302-1723	2		Ampere - Begin Spec R
9			Module, Indicator - Fault 12 VDC A12	302-1641	1		Volt - M13 (8-18V) (Spec S)
	322-0358-01	1	2 Light	23	302-0885	1	Meter, Totalizing - Time M14
	322-0359-01	1	7 Light (Spec S)	24	193-0435	1	Gauge, Temperature - Oil M15
	322-0360-01	1	12 Light	25	302-1873-01	1	Tachometer, M16
	815-0385	2	Screw, Machine - Round Head, Black (#6-32 x 1/2")	26	517-0221	1	Plug, Button
	870-0183	2	Nut, Self-locking - Hex with ET Lock Washer (#6-32)	27	332-0052	1	Clamp, Loop
10	322-0369-01	1	Lamp, Incandescent - 1/3 Watt, 14 VDC	870-0131	1		Nut, Self-locking - Hex with ET Lock Washer (#10-32)
				28	301-9055-01	1	Door, Control
					301-9055-02	1	With 5 Gauge Holes
				29			With 3 Gauge Holes
							Harness, Wiring
							DC Door Assembly to Engine Monitor Board
					338-1817	1	Spec P-R
					338-2277	1	Begin Spec S
					338-1835	1	Alarm Relay
					338-1836	1	8 Wire
					308-0853	1	5 Wire
							Switch, Emergency Stop - Begin Spec R

**Engine Control - Spec C Through N**



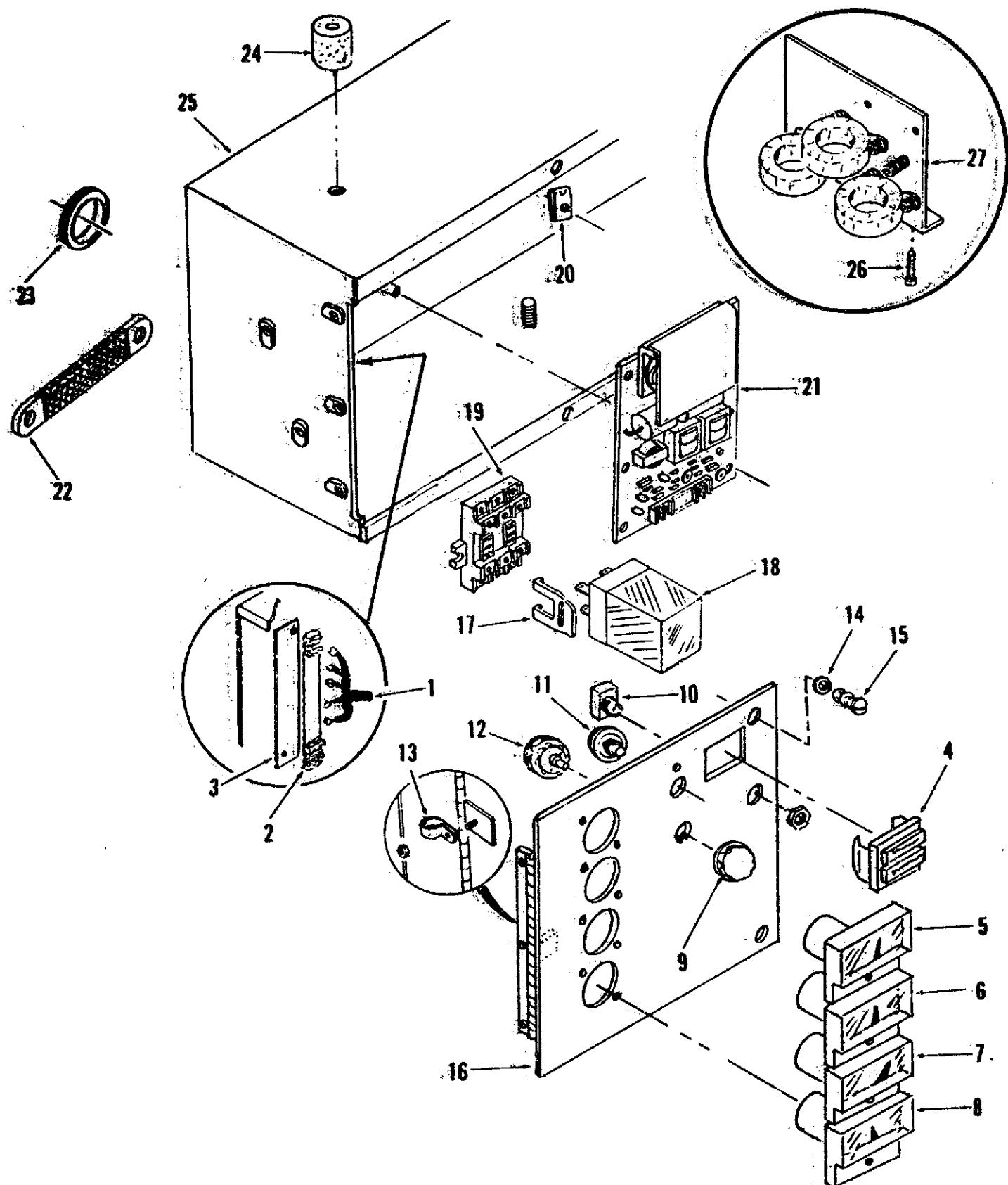
## Engine Control - Spec C Through N

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	322-0004	1	Clamp - 12 VDC DS11	19			Switch, Toggle - Selector S12
2	322-0149	1	Light, Panel	308-0138	1		Standard
3	307-1157	4	Spring - Relay	308-0327	1		Penn State
4	307-1058	1	Relay - Ignition K12	20	333-0194-01	1	Flasher - 12 VDC S13
5	307-1058	1	Relay - Start Disconnect K11	813-0105	1		Screw, Machine - Round head (#10-32 x 1")
6	307-1058	1	Relay - Run Alarm K15	21	301-6053	1	Bracket, Mounting
7	307-1061	1	Relay - Start Protection K14	22	308-0002	1	Switch, Toggle - SPST S11
8	518-0374	1	Fastener, Snap-In	23	815-0026	5	Screw, Machine - Truss head (#10-32 x 3/8")
9			Board, Control - Cranker				
			12 VDC A12				
	300-0733	1	Standard	24	870-0053	1	Nut, Hex (#10-32)
	300-0714	1	Cycle	25	850-0030	1	Washer, Lock - Spring (#10)
10			Board, Monitor - Engine	26	856-0003	1	Washer, Lock - ET (#10)
			12 VDC A11	27	301-3253	1	Bracket, Mounting
	300-0679	1	Standard (1 Light)	28			#Panel, Control
	300-0730	1	Penn State (1 Light)				(Selection Required Contact Onan Distributor)
	300-0681	1	Standard (5 Light)				
11	332-1276	2	Plug, Keying	29	356-0072	1	Capacitor
			Terminal	812-0061			Screw, Machine - Round head (#6-32 x 3/8")
			(Includes Parts Marked ^)				Washer, Lock - ET (#6)
	871-0010	2	*Nut, Hex - Brass (#10-32)	853-0003	1		Nut, Hex (#6-32)
	850-0030	1	*Washer, Lock - Spring (#10)	860-0006	1		Clamp, Capacitor
	526-0062	2	*Washer, Flat (#10)	30	356-0070	1	Screw, Machine - Round head (#6-32 x 1/2")
	853-0008	1	*Washer, Lock - ET (#10)	812-0063	2		Washer, Lock - ET (#6)
	856-0003	1	*Washer, Lock - EIT (#10)	853-0003	2		Nut, Hex (#10-32)
	815-0203	1	*Screw, Machine - Round Head, Brass (#10-32 x 7/8")	31	870-0053	1	Washer, Lock - Spring (#10)
13			Gauge, Pressure - Oil	32	850-0030	1	Clamp, Loop
	193-0243	1	12 VDC M11	33	332-0051	1	*Harness, Wiring
	193-0107	1	Begin 1977	34			(Selection Required, Contact Onan Distributor)
14			Through 1976				
			Gauge, Temperature - Water	35	332-1043	1	Jumper, Terminal
			12 VDC M12	36	332-1005	1	Block, Terminal TB11
	193-0245	1	Begin 1977				20 Place
	193-0106	1	Through 1976				16 Place
15	302-1362	1	Meter, Ampere M13	332-0795	1		Strip, Marker
16			Gauge, Temperature - Oil	37			20 Place
			12 VDC M14	332-1559	1		16 Place
	193-0248	1	Begin 1977	332-1271	1		Block, Terminal - 4 Place TB1
	193-0187	1	Through 1976	38	332-0537	1	Strip, Marker - 4 Place
17	302-0749	1	Meter, Tach M14	39	332-1239	1	Block, Terminal - 6 Place
18			Light, Indicator - 14 VDC	40	332-0699	1	Strip, Marker - 6 Place
	322-0107	1	Red - OVERCRANK DS12	41	332-1240	1	Socket, Relay (Less Terminals)
	322-0108	1	Red - LO OIL PRESS DS14	42	323-0765	3	11 Terminal
	322-0109	1	Red - HI ENG TEMP DS15	332-1280			8 Terminal
	322-0110	1	Red - LO ENG TEMP DS16	43	323-0764	1	Socket, Relay (Less Terminals)
	322-0111	1	Red - OVERSPEED DS13	332-1280	8		1 Plug, Keying
	322-0128	1	Red - FAULT DS12	815-0392	1		Housing, Terminal
	322-0283	1	Red - SWITCH OFF DS17	44	332-1271	1	22 Terminal
	322-0136	1	Red - Blank (No Legend)	332-1269	22		

\* - Five Fault Light 338-0535.

# - With Three Gauge Holes and Five Fault Light 301-3267.

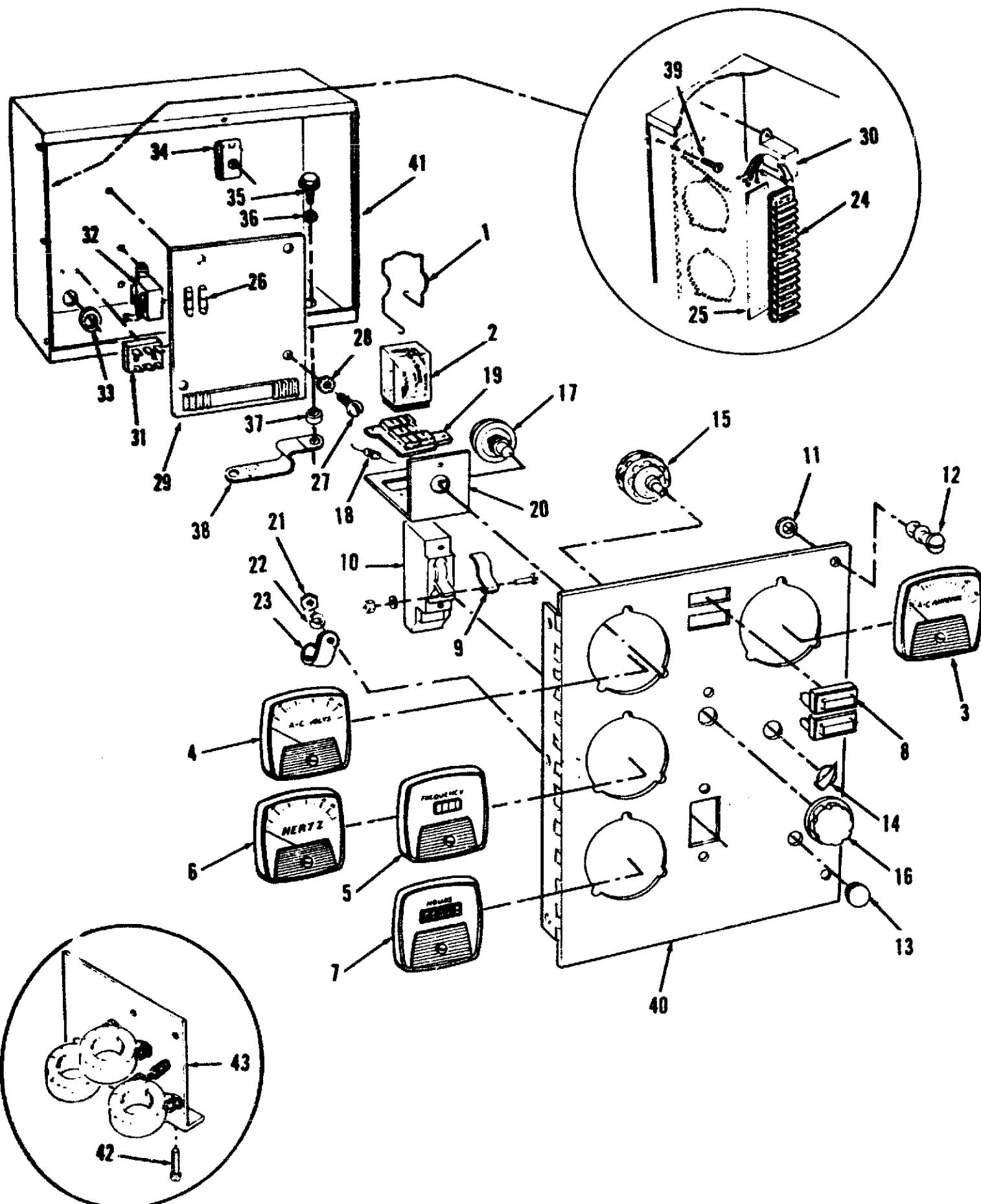
**Generator Control - Begin Spec P**



# Generator Control - Begin Spec P

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Wiring - (Includes Terminal Block)	15	406-0333	2	Stud - Fastener
	338-1818	1	Control with Meters	16	301-9054-01	1	Door, Control
	338-2278	1	Control with Meters - Begin (Spec S)		301-9054-02	1	With 4 Meter Holes
	338-1853	1	Control without Meters		301-9054-03	1	With 3 Meter Holes
	812-0065	2	Screw, Machine - Round Head (#6-32 x 5/8")		821-0004	3	With No Meter Holes
2	302-0607	1	Block, Terminal TB1	17	307-1987	2	Screw, Self-locking - Hex Washer Head (#10-32 x 5/16")
3	332-2723	1	Strip, Marker	18	307-1058	1	Clip - Relay
4	322-0363	1	Light, Indicator - Dual DS21, DS22	19	323-0804	1	Relay - 12 VDC K21
5	302-1148	1	Meter, Volt M21	20	406-0332	2	Socket, Relav
6	302-1147	1	Meter, Ampere M22	21	815-0544	2	Screw, Machine - Round Head IT Lockwshr (#6-32 x 1/2")
	302-1147	1	0-75/150 Amp - Begin Spec S - EK		300-2880	1	Receptacle, Fastener
	302-1683	1	0-100/200 Amp - Begin Spec S - EM		815-0544	6	Regulator, Voltage VR21
	302-1684	1	0-150/300 Amp	22	337-0049	1	Before Spec S
	302-1685	1	0-200/400 Amp		800-0024	1	Screw, Machine - Round Head
	302-1724	1	0-250/500 Amp		856-0008	1	IT Lockwshr (#6-32 x 1/2")
	302-1725	1	0-375/750 Amp	23	508-0051	1	Strap, Electrical
	302-1726	1	0-400/800 Amp	24	402-0527	2	Screw, Cap - Hex Head
	302-1727	1	0-500/1000 Amp		800-0045	4	(5/16-18 x 1/2")
7	302-1720	1	Meter, Frequency M23				Washer, Lock - EIT (5/16")
8		1	Meter, Watt M24 (See Separate page for Components)	25	301-8065	1	Grommet
9	303-0032	1	Knob	26	821-0010	2	Mount, Vibration
10	320-1121	1	Breaker, Circuit CB21	27			Screw, Cap - Hex Head
11	303-0261	1	Rheostat R21				(5/16-18 x 3/8")
12			Switch, Rotary S21	28	319-0447	1	Washer, Lock - Spring (5/16")
	308-0284	1	Begin Spec P				Box, Control
	308-0882	1	Begin Spec S	29	815-0388	2	Screw, Self-locking - hex
13	332-0052	1	Clip, Loop				Washer Head (1/4-20 x 1/2")
	870-0131	1	Nut, Self-locking - Hex with ET Lock Washer (#10-32)				Current Transformer
14	406-0334	2	Clip - Fastener				(See Separate Page for Components)
							Bracket, Relay Mounting -
							Begin Spec R
							Screw, Pan Head x Rec
							(#6-32 x 1/2")

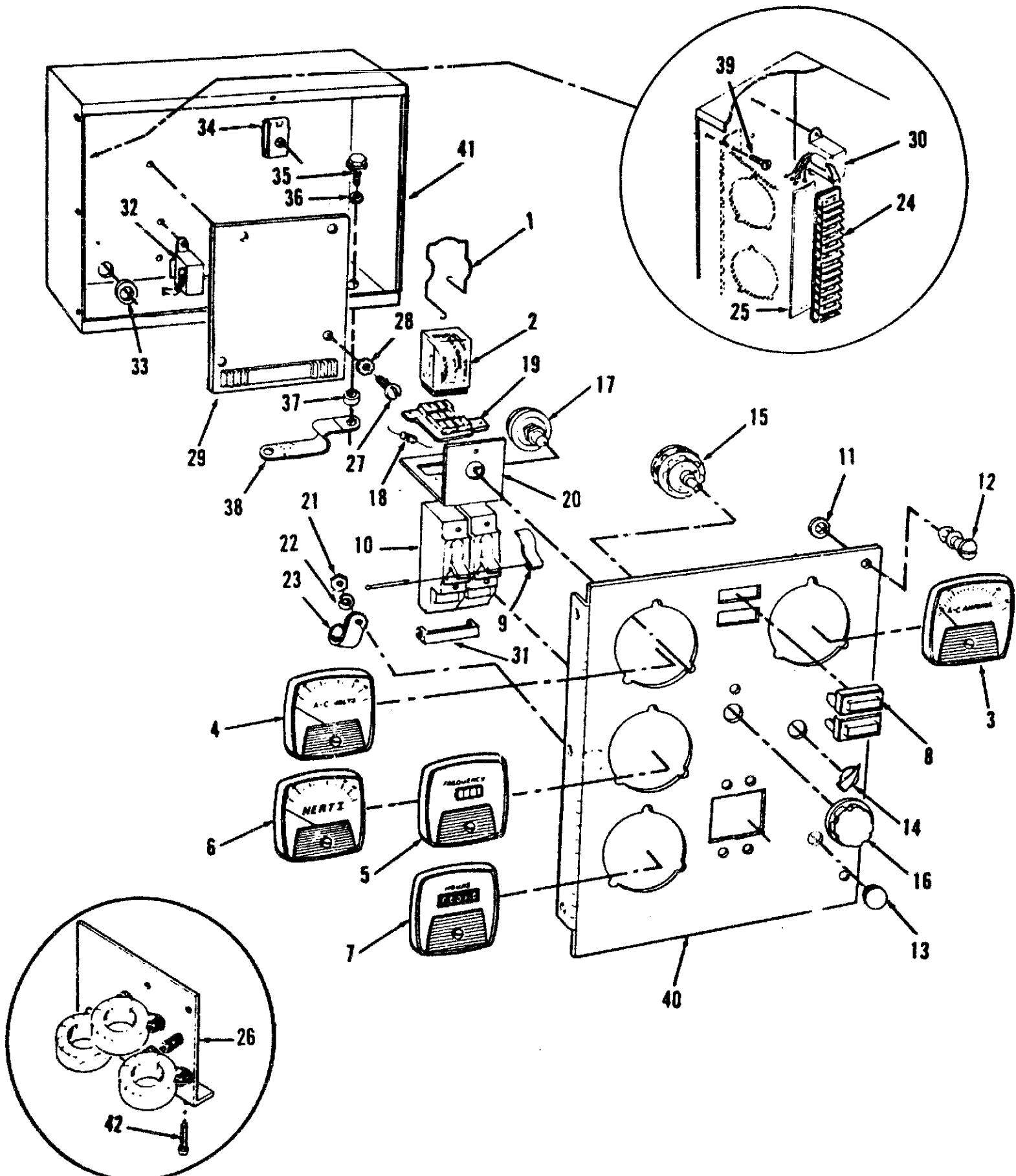
## Generator Control - Spec C Through N



## Generator Control - Spec C Through N

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION	
1	307-1157	1	Spring - Relay	19	323-0765	1	Socket, Relay (Less Terminals)	
2	307-1061	1	Relay K21		812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")	
3			Meter, Ampere M21		853-0003	2	Washer, Lock - ET (#6)	
	302-0405	1	0-50 Amp		860-0005	2	Nut, Hex (#6-32)	
	302-0406	1	0-75 Amp		332-1280	11	Terminal	
	302-0408	1	0-100 Amp		20	301-3244	1	Bracket, Mounting
	302-0410	1	0-150 Amp		21	870-0053	1	Nut, Hex (#10-32)
	302-0411	1	0-200 Amp		22	850-0030	1	Washer, Lock - Spring (#10)
	302-0412	1	0-250 Amp		23	332-0051	1	Clamp, Loop
	302-0413	1	0-300 Amp		24		Block, Terminal TB21	
	302-0605	1	0-400 Amp		332-0607	1	12 Place	
	302-0719	1	0-75, 0-150 Amp		332-0795	1	16 Place	
	302-0720	1	0-100, 0-200 Amp		812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")	
	302-0721	1	0-150, 0-300 Amp		853-0003	2	Washer, Lock - ET (#6)	
	302-0722	1	0-200, 0-400 Amp		850-0020	2	Washer, Lock - Spring (#6)	
	302-0723	1	0-250, 0-500 Amp				Strip, Marker	
	302-0724	1	0-375, 0-750 Amp		332-1242	1	16 Place	
4			Meter, Volt M22		332-1248	1	12 Place	
	302-0421	1	0-300 VAC		26	321-0204	2	Fuse, Cartridge - 1/4 Amp
	302-0422	1	0-600 VAC		27	812-0065	4	Screw, Machine - Round Head (#6-32 x 5/8")
	302-0612	1	0-500 VAC		28	853-0003	4	Washer, Lock - ET (#6)
	302-0779	1	0-750 VAC		29		Regulator, Voltage VR21	
	302-0718	1	0-300, 0-600 VAC		332-1264	1	Spec C Only	
5			Meter, Frequency - Reed M23		332-1268	1	Spec D through K (Requires 120 VAC Input Signal)	
	302-0213	1	115 VAC, 60 Hertz		332-1956	1	Begin Spec J (Requires 240 VAC Input Signal)	
	302-0221	1	230 VAC, 60 Hertz				Transformer, Voltage T21	
	302-0234	1	115 VAC, 50 Hertz		30	315-0342	1	120 VAC
	302-0256	1	230 VAC, 50 Hertz		315-0431	1	240 VAC	
6			Meter, Frequency - Pointer M23		812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")	
	302-0809	1	120 VAC, 60 Hertz		853-0003	2	Washer, lock - ET (#6)	
	302-0810	1	208 VAC, 60 Hertz		31	305-0675	1	Rectifier, Bridge CR21
	302-0811	1	240 VAC, 60 Hertz		812-0070	2	Screw, Machine - Round Head (#6-32 x 1-1/4")	
7			Meter, Totalizing - Time M24		850-0020	2	Washer, Lock - Spring (#6)	
	302-0466	1	60 Hertz		32	315-0384	1	Reactor L21
	302-0469	1	50 Hertz		812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")	
8			Light, Indicator - 125 VAC		853-0003	2	Washer, Lock - ET (#6)	
	322-0130	1	Red - UPPER SCALE DS21		33	508-0001	1	Grommet
	322-0131	1	Red - LOWER SCALE DS22		34	406-0332	2	Receptacle, Fastener
	322-0178	1	Red - Blank (No Legend)		35	800-0045	4	Screw, Cap - Hex Head (5/16-18 x 3/8")
9	320-0307	1	Lock, Handle		36	850-0045	4	Washer, Lock - Spring (5/16")
	815-0203	1	Screw, Machine - Round Head (#10-32 x 7/8")		37	402-0078	4	Dampener, Vibration
	854-0010	1	Washer, Lock - ET (#10)		38	337-0049	1	Strap, Electrical - Ground
	871-0010	1	Nut, Hex (#10-32)		39	815-0026	3	Screw, Machine - Truss Head (#10-32 x 3/8")
10			Breaker, Circuit (CB21)		40		Panel, Control (Selection Required, Contact Onan Distributor)	
	320-0431	1	2 Amp		41	301-3158	1	Box, Control
	320-0439	1	2 Amp with AUX Contacts		42	821-0010	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
	812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")				Current Transformer (See Separate Page for Components)	
	850-0020	2	Washer, Lock - Spring (#6)					
11	406-0334	2	Clip - Fastener					
12	406-0333	2	Stud - Fastener					
13	517-0131	1	Plug, Plastic					
14	303-0076	1	Knob, Pointer					
15	308-0284	1	Switch, Selector S21					
16	303-0032	1	Knob					
17	303-0170	1	Rheostat R21					
18	350-0556	1	Resistor R22					
				43				

## Generator Control - Switching Regulator

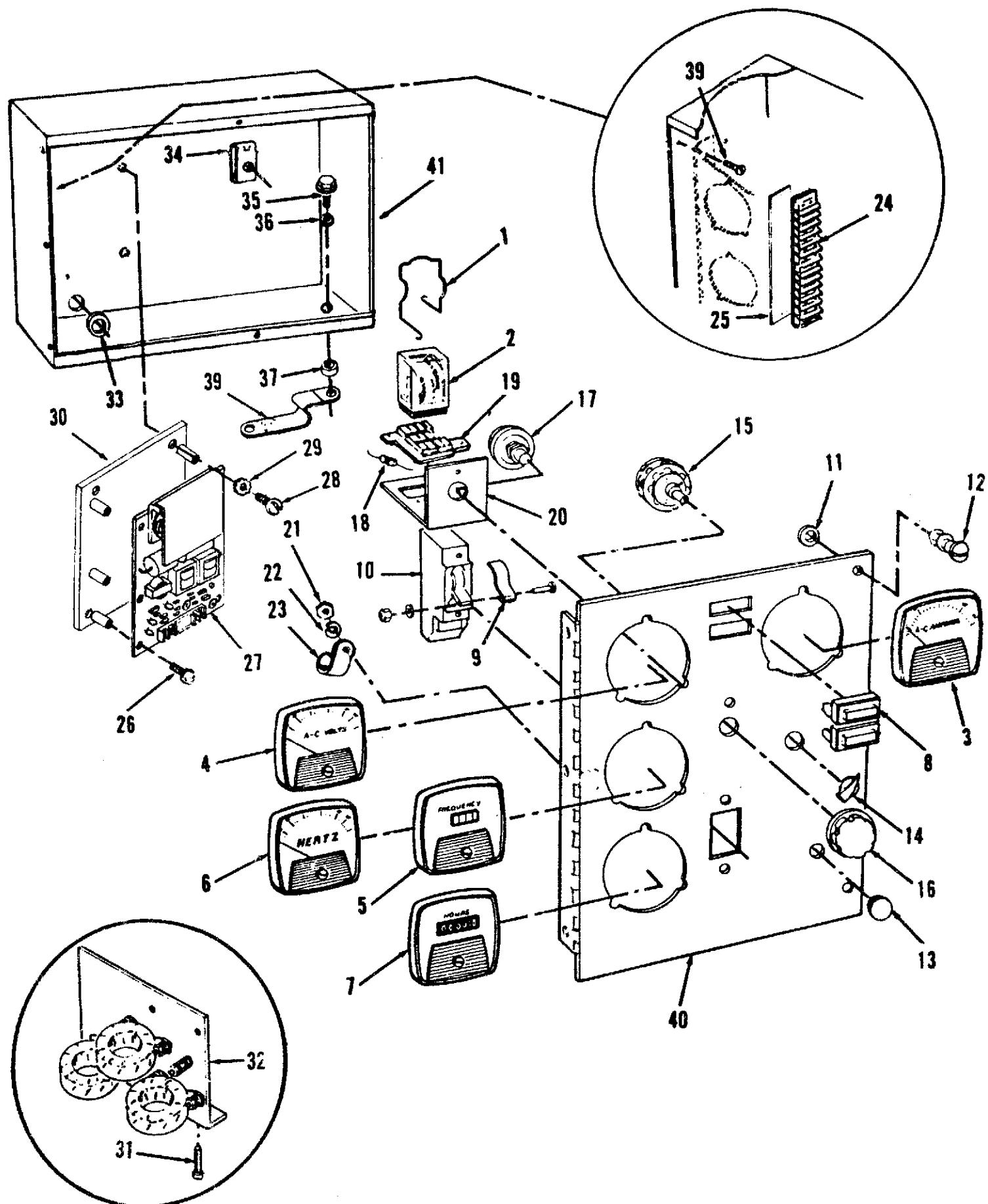


## Generator Control - Switching Regulator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	307-1157	1	Spring - Relay	18	350-0556	1	Resistor R22
2	307-1061	1	Relay K21	19	323-0765	1	Socket, Relay (Less Terminals)
3			Meter, Amperes M21	312-0061		2	Screw, Machine - Round Head (#6-32 x 3/8")
	302-0405	1	0-50 Amp	853-0003		2	Washer, Lock - ET (#6)
	302-0406	1	0-75 Amp	860-0005		2	Nut, Hex (#6-32)
	302-0408	1	0-100 Amp	332-1280		1	Terminal
	302-0410	1	0-150 Amp	20	301-3244	1	Bracket, Mounting
	302-0411	1	0-200 Amp	21	870-0053	1	Nut, Hex (#10-32)
	302-0412	1	0-250 Amp	22	850-0030	1	Washer, Lock - Spring (#10)
	302-0413	1	0-300 Amp	23	332-0051	1	Clamp, Loop
	302-0605	1	0-400 Amp	24			Block, Terminal TB21
	302-0719	1	0-75, 0-150 Amp	332-0607		1	12 Place
	302-0720	1	0-100, 0-200 Amp	332-0795		1	16 Place
	302-0721	1	0-150, 0-300 Amp	812-0066		2	Screw, Machine - Round Head (#6-32 x 3/4")
	302-0722	1	0-200, 0-400 Amp				Washer, Lock - ET (#6)
	302-0723	1	0-250, 0-500 Amp				Washer, Lock - Spring (#6)
	302-0724	1	0-375, 0-750 Amp	853-0003		2	Strip, Marker
4			Meter, Volt M22	850-0020		2	16 Place
	302-0421	1	0-300 VAC	25	332-1242	1	12 Place
	302-0422	1	0-600 VAC	332-1248		1	Current Transformer (See Separate Page for Components)
	302-0612	1	0-500 VAC				Screw, Machine - Round Head (#6-32 x 5/8")
	302-0779	1	0-750 VAC	26		4	Washer, Lock - ET (#6)
	302-0718	1	0-300, 0-600 VAC				Regulator, Voltage VR21
5			Meter, Frequency - Reed M23	27	812-0065		Semi-Frequency Sensitive
	302-0213	1	115 VAC, 60 Hertz	28	853-0003		Voltage Sensitive
	302-0221	1	230 VAC, 60 Hertz	29			Frequency Sensitive
	302-0234	1	115 VAC, 50 Hertz	300-2971		1	Transformer, Voltage - 240 VAC T21
	302-0256	1	230 VAC, 50 Hertz	300-2971		2	Screw, Machine - Round Head (#6-32 x 3/8")
6			Meter, Frequency - Pointer M23	300-2971			Washer, Lock - ET (#6)
	302-0809	1	120 VAC, 60 Hertz	30	315-0431	1	Bar, Locking
	302-0810	1	208 VAC, 60 Hertz	812-0061		2	Reactor L21, L22
	302-0811	1	240 VAC, 60 Hertz				Screw, Machine - Round Head (#6-32 x 3/8")
7			Meter, Totalizing - Time M24	853-0003		4	Washer, Lock - ET (#6)
	302-0466	1	60 Hertz	31	320-0202	1	Grommet
	302-0469	1	50 Hertz	32	315-0384	2	Receptacle, Fastener
8			Light, Indicator - 125 VAC	812-0061		4	Screw, Cap - Hex Head (5/16-18 x 3/8")
	322-0130	1	Red - UPPER SCALE DS21				Washer, Lock - Spring (5/16")
	322-0131	1	Red - LOWER SCALE DS22	853-0003		4	Dampener, Vibration
	322-0178	1	Red - Blank (No Legend)	33	508-0001	1	Strap, Electrical - Ground
9	320-0307	1	Lock, Handle	34	406-0332	2	Screw, Machine - Truss Head (#10-32 x 3/8")
	815-0203	1	Screw, Machine - Round Head (#10-32 x 7/8")	35	800-0045	4	Panel, Control (Selection Required,
	854-0010	1	Washer, Lock - ET (#10)	36	850-0045	4	Contact Onan Distributor)
	871-0010	1	Nut, Hex (#10-32)	37	402-0078	4	Box, Control
10	320-0455	2	Breaker, Circuit CB21	38	337-0049	1	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
	812-0061	4	Screw, Machine - Round Head (#6-32 x 3/8")	39	815-0026	3	
	850-0020	4	Washer, Lock - Spring (#6)	40			
11	406-0334	2	Clip - Fastener				
12	406-0333	2	Stud - Fastener				
13	517-0131	1	Plug, Plastic				
14	303-0076	1	Knob, Pointer	41	301-3158	1	
15	308-0284	1	Switch, Selector S21	42	821-0010	2	
16	303-0032	1	Knob				
17	303-0170	1	Rheostat R21				



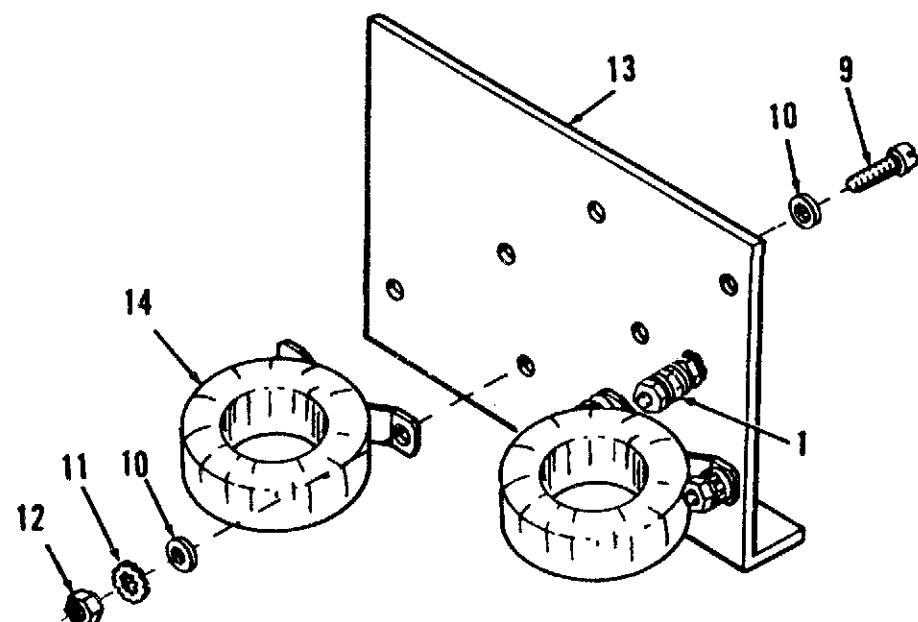
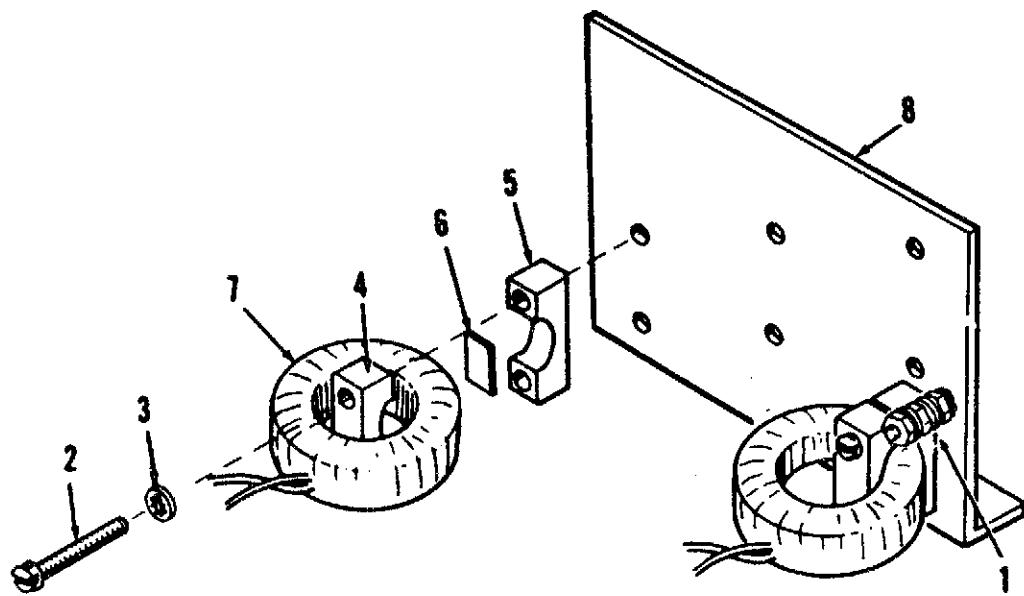
## Generator Control - Torque Matched Regulator



## Generator Control - Torque Matched Regulator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION	
1	307-1157	1	Spring - Relav	16	303-0032	1	Knob	
2	307-1061	1	Relay K21	17	303-0261	1	Rheostat R21	
3			Meter, Ampere M21	18	350-0556	1	Resistor R22	
	302-0405	1	0-50 Amp	19	323-0765	1	Socket, Relay (Less Terminals)	
	302-0406	1	0-75 Amp		812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")	
	302-0408	1	0-100 Amp		853-0003	2	Washer, Lock - ET (#6)	
	302-0410	1	0-150 Amp		860-0005	2	Nut, Hex (#6-32)	
	302-0411	1	0-200 Amp		332-1280	1	Terminal	
	302-0412	1	0-250 Amp	20	301-3244	1	Bracket, Mounting	
	302-0413	1	0-300 Amp	21	870-0053	1	Nut, Hex (#10-32)	
	302-0605	1	0-400 Amp	22	850-0030	1	Washer, Lock - Spring (#10)	
	302-0719	1	0-75, 0-150 Amp	23	332-0051	1	Clamp, Loop	
	302-0720	1	0-100, 0-200 Amp		24		Block, Terminal T821	
	302-0721	1	0-150, 0-300 Amp		332-0607	1	12 Place	
	302-0722	1	0-200, 0-400 Amp		332-0795	1	16 Place	
	302-0723	1	0-250, 0-500 Amp		812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")	
	302-0724	1	0-375, 0-750 Amp		853-0003	2	Washer, Lock - ET (#6)	
4			Meter, Volt M22		850-0020	2	Washer, Lock - Spring (#6)	
	302-0421	1	0-300 VAC		332-1242	1	Strip, Marker	
	302-0422	1	0-600 VAC		332-1248	1	16 Place	
	302-0612	1	0-500 VAC		26	815-0544	6	12 Place
	302-0779	1	0-750 VAC		27	300-2880	1	Screw, Machine - Round Head with IT Lock Washer (#6-32 x 1/2")
	302-0718	1	0-300, 0-600 VAC		28	812-0065	4	Regulator, Voltage VR21
5			Meter, Frequency - Reed M23		29	853-0003	4	Screw, Machine - Round Head (#6-32 x 5/8")
	302-0213	1	115 VAC, 60 Hertz		30	301-9315	1	Washer, Lock - ET (#6)
	302-0221	1	230 VAC, 60 Hertz		31	821-0010	2	Bracket, Mounting
	302-0234	1	115 VAC, 50 Hertz				Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")	
	302-0256	1	230 VAC, 50 Hertz				Current Transformer (See Separate Page for Components)	
6			Meter, Frequency - Pointer M23		32			
	302-0809	1	120 VAC, 60 Hertz		33	508-0001	1	Grommet
	302-0810	1	208 VAC, 60 Hertz		34	406-0332	2	Receptacle, Fastener
	302-0811	1	240 VAC, 60 Hertz		35	800-0045	4	Screw, Cap - Hex Head (5/16-18 x 3/8")
7			Meter, Totalizing - Time M24		36	850-0045	4	Washer, Lock - Spring (5/16")
	302-0466	1	60 Hertz		37	402-0078	4	Dampener, Vibration
	302-0469	1	50 Hertz		38	337-0049	1	Strap, Electrical - Ground
8			Light, Indicator - 125 VAC		39	815-0026	3	Screw, Machine - Truss Head (#10-32 x 3/8")
	322-0130	1	Red - UPPER SCALE DS21		40		Panel, Control (Selection Required, Contact Onan Distributor)	
	322-0131	1	Red - LOWER SCALE DS22		41	301-3158	1	Box, Control
	322-0178	1	Red - Blank (No Legend)					
9	320-0307	1	Lock, Handle					
	815-0203	1	Screw, Machine - Round Head (#10-32 x 7/8")					
	854-0010	1	Washer, Lock - ET (#10)					
	871-0010	1	Nut, Hex (#10-32)					
10	320-0431	1	Breaker, Circuit CB21					
	812-0061	2	Screw, Machine - Round Head (#6-32 x 3/8")					
	850-0020	2	Washer, Lock - Spring (#6)					
11	406-0334	2	Clip - Fastener					
12	406-0333	2	Stud - Fastener					
13	517-0131	1	Plug, Plastic					
14	303-0076	1	Knob, Pointer					
15	308-0284	1	Switch, Selector S21					

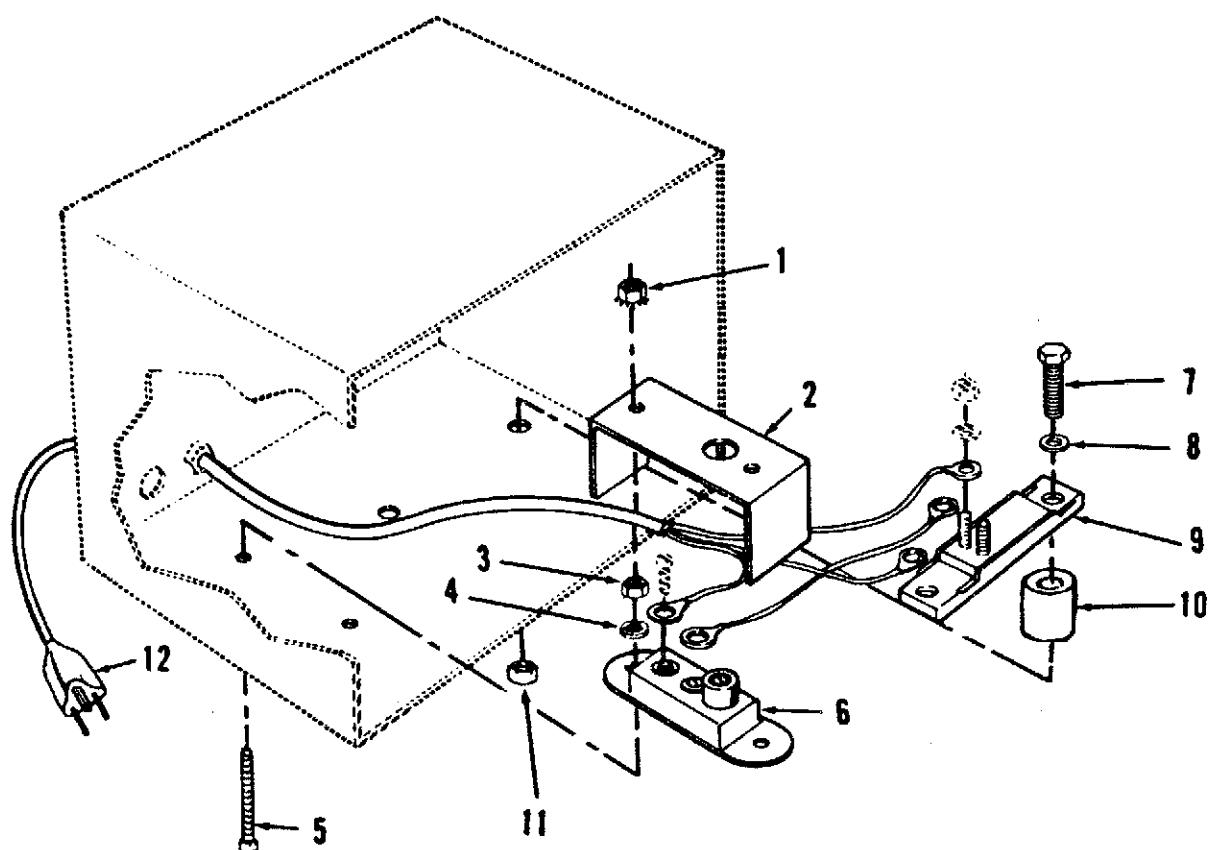
## Current Transformer



## Current Transformer

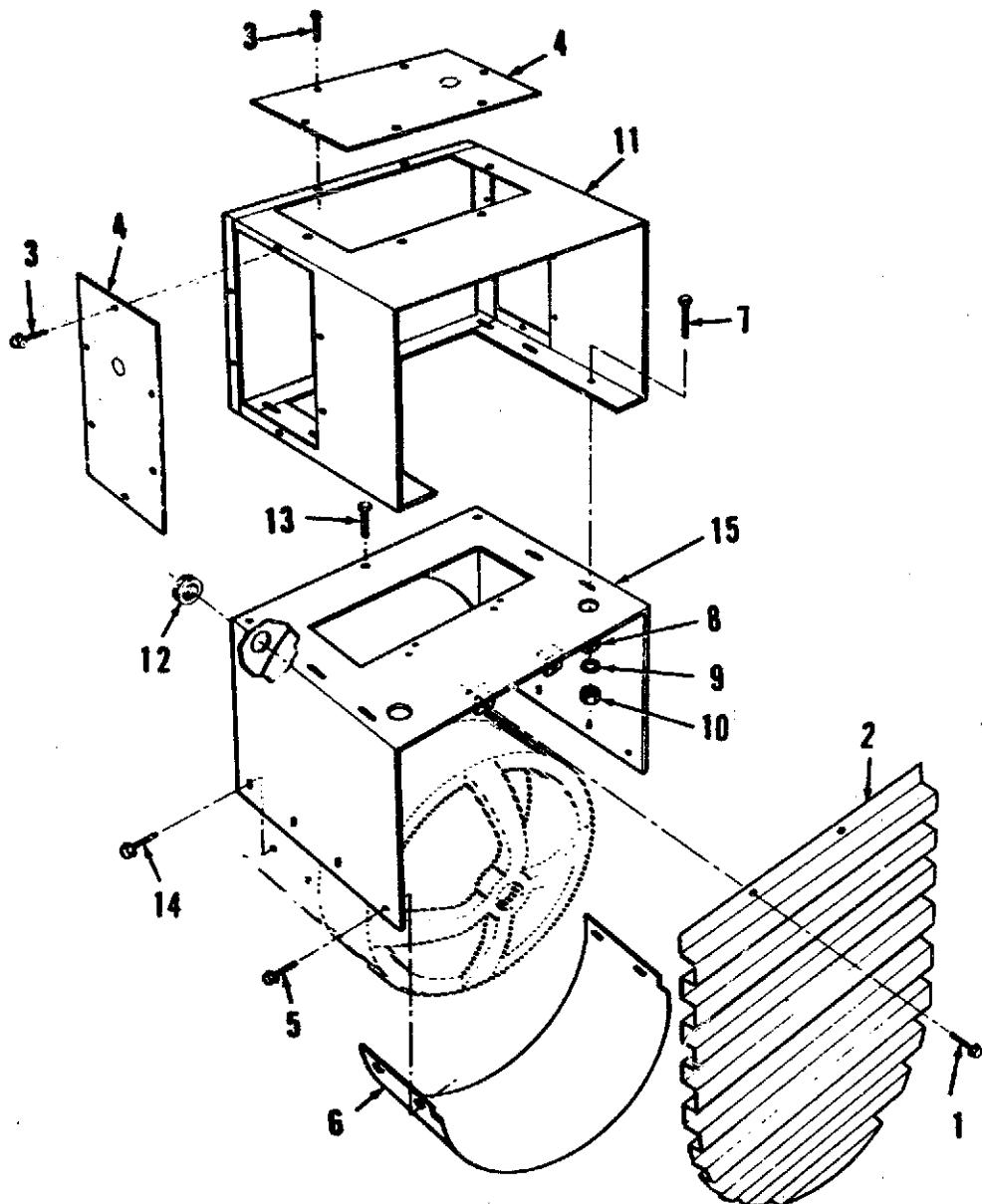
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Terminal	9	813-0100	6	Screw, Machine - Round Head (#10-32 x 1/2")
	813-0203	1	Screw, Machine - Round Head, Brass (#10-32 x 7/8")	10	526-0008	6	Washer, Flat (#10)
	871-0010	3	Nut, Hex - Brass (#10-32)	11	856-0003	6	Washer, Lock - EIT (#10)
	856-0003	1	Washer, Lock - EIT (#10)	12	870-0053	6	Nut, Hex (#10-32)
	854-0010	2	Washer, Lock - IT (#10)	13	302-0764	1	Bracket, Mounting -
	526-0049	2	Washer, Flat - Brass (#10)	14			Transformer, Current with Mounting Feet
2	813-0110	6	Screw, Machine - Round Head (#10-32 x 2")		302-0864	3	Ratio (Meter Scale) 150/5 (0-75/0-150A) - Before Spec S
3	854-0010	6	Washer, Lock - IT (#10)		302-0865	3	200/5 (0-100/0-200A) - Before Spec S
4	302-0235	3	Clamp - Upper		302-1868-03	3	75/5; 150/5 Ratio (EK) - Begin Spec S
5	302-0236	3	Clamp - Lower		302-1868-04	3	100/5; 200/5 Ratio (EM) - Begin Spec S
6	302-0253	6	Shim		302-1868-05	3	150/5; 0-150/0-300 - Begin Spec S
7			Transformer, Current Ratio (Meter Scale)				
	302-1365	3	75/5 (0-75A) Before Spec S				
	302-0078	3	100/5 (0-100A) Before Spec S				
	302-0079	3	150/5 (0-150A) Before Spec S				
	302-0106	3	200/5 (0-200A) Before Spec S	15	98-2263	1	Silkscreen, Transformer
8	302-0729	1	Bracket, Mounting				

## Control Heater



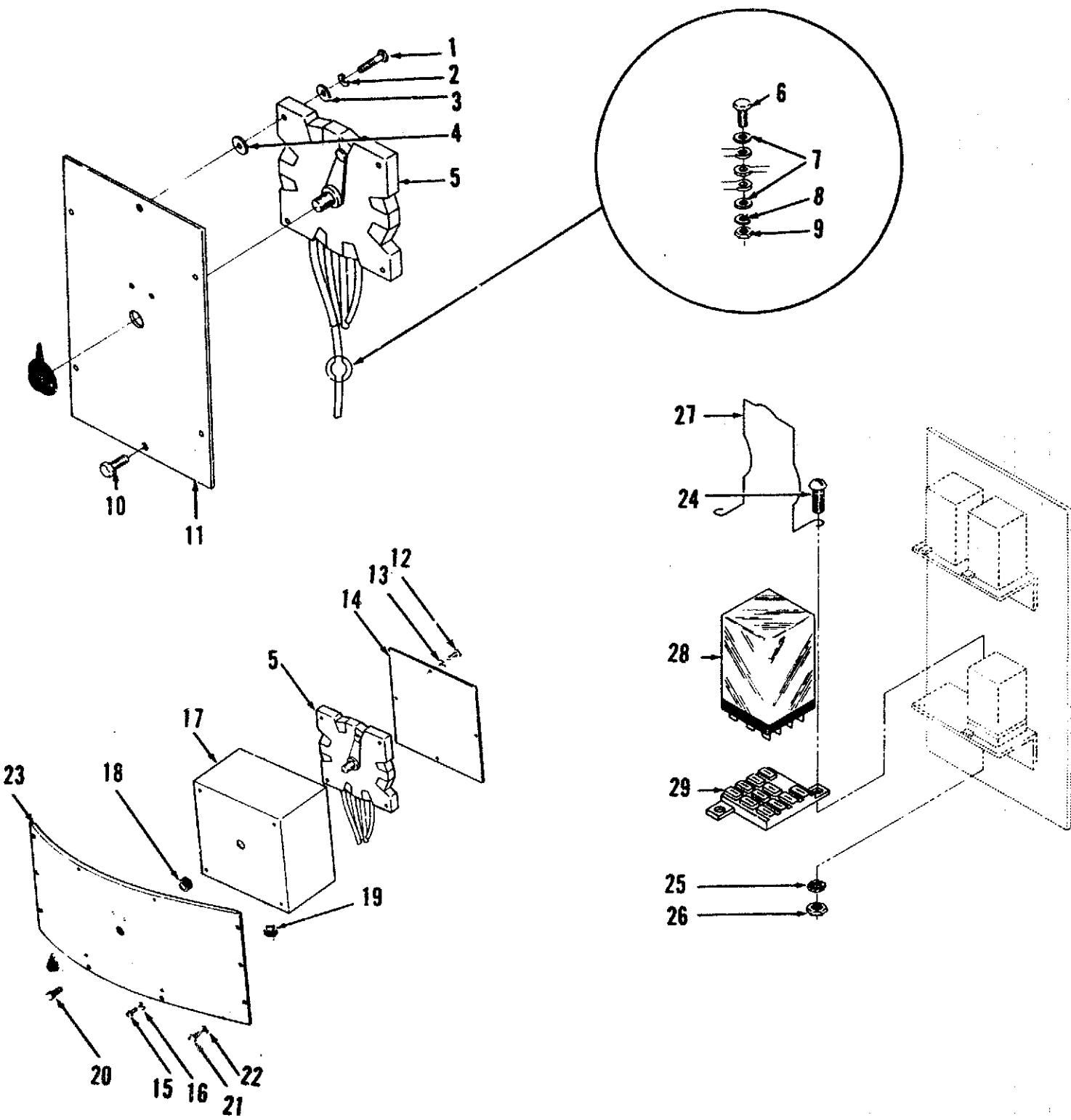
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0183	2	Nut, Self-locking - Hex Washer Head (#6-32)	8	526-0113	2	Washer, Flat (5/16")
2	301-1886	1	Cover, Thermostat	9	333-0151	1	Heater, Electrical - 75 Watt. 120 VAC; 300 Watt, 240 VAC
3	860-0006	1	Nut, Hex (#6-32)	10	130-1107	2	Spacer, Sleeve
4	854-0006	2	Washer, Lock - IT (#6)	11	870-0257	2	Nut, Self-locking - Hex (5/16-18)
5	812-0070	2	Screw, Machine - Round Head (#6-32 x 1-1/4")	12	335-0161	1	Cable, Electrical
6	309-0128	1	Thermostat - Adjustable				
7	800-0034	2	Screw, Cap - Hex Head (5/16-18 x 2-1/4")				

## Control Housing



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	8	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")	8	856-0006	1	Washer, Lock - EIT (1/4")
2	234-0370	1	Grille	9	526-0018	5	Washer, Flat (1/4")
3	815-0350	18	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")	10	870-0212	6	Nut, Hex (1/4-20)
4	301-3156	3	Panel, Access	11	301-3155	1	Housing
5	821-0010	4	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")	12	508-0203	1	Bushing, Cable
6	234-0361	1	Wrapper - Generator	13	821-0010	1	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
7	821-0018	6	Screw, Self-locking - Hex Washer Head (1/4-20 x 5/8")	14	821-0014	8	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
				15	301-3154	1	Saddle

## Dual Phase Switch

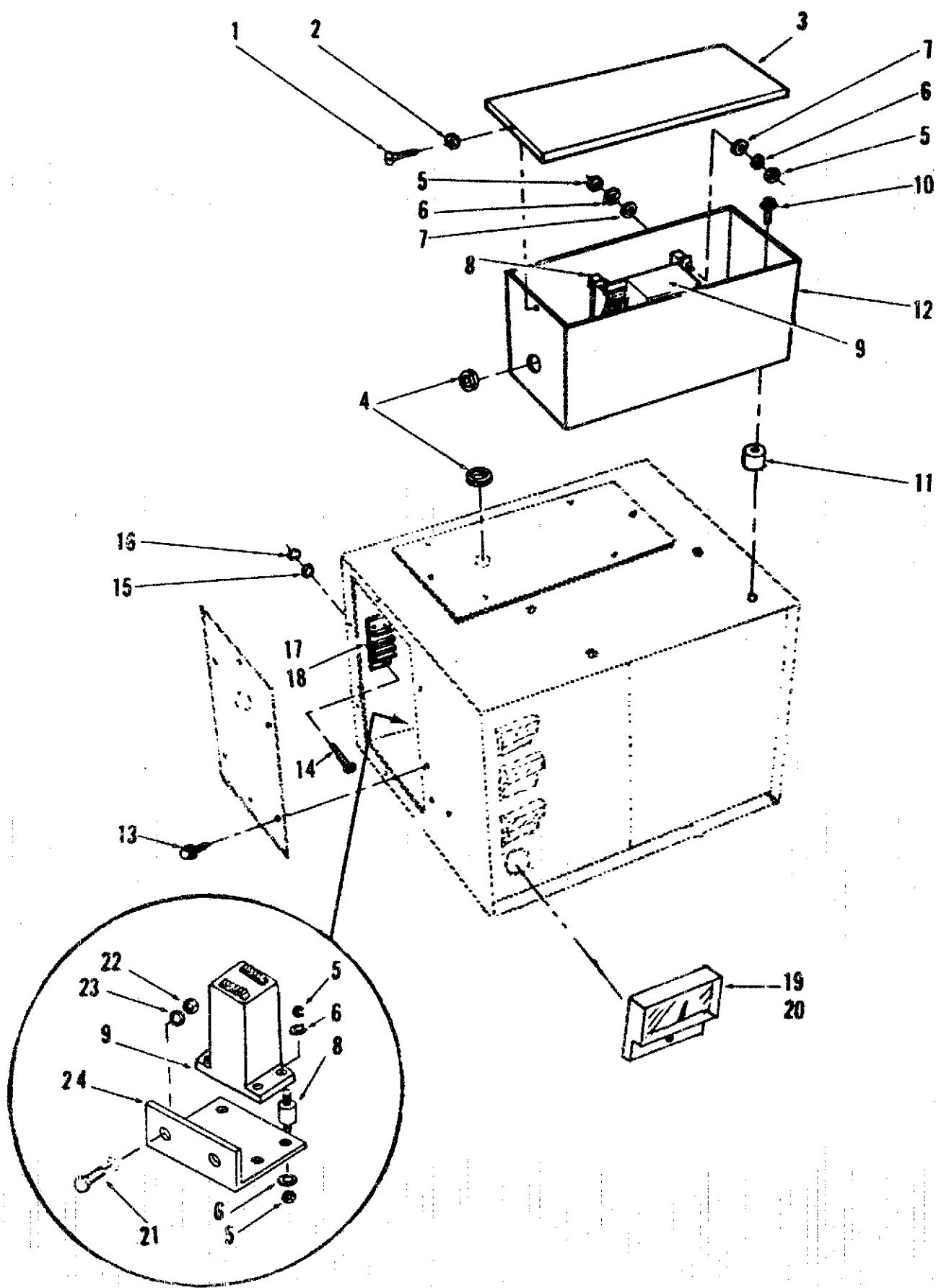


## Dual Phase Switch

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0153	4	Screw, Machine - Round Head (1/4-20 x 1")	18	508-0009	1	Grommet (Housed Sets)
2	850-0040	4	Washer, Lock - Spring (1/4")	19	508-0115	2	Grommet (Housed Sets)
3	526-0052	4	Washer, Flat (1/4")	20	821-0014	2	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
4	526-0054	4	Washer, Flat (5/16")	21	813-0098	6	Screw, Machine - Round Head (#10-32 x 3/8")
5	308-0152	1	Switch, Rotary (Includes Knob)	22	850-0030	6	Washer, Lock - Spring (#10) Panel, Access - Rear (Housed Sets)
6	800-0028	5	Screw, Cap - Hex Head (5/16-18 x 1")	23			10-1/4" H x 22"W
7	526-0002	10	Washer, Flat (#6)	405-1840		1	14-1/2" H x 22"W
8	850-0045	5	Washer, Lock - Spring (5/16")	405-2160		1	Screw, Machine - Round Head (#6-32 x 3/8")
9	862-0015	5	Nut, Hex (5/16-18)	24	812-0061	2	Washer, Lock - ET (#6)
10	821-0014	2	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")	25	853-0003	2	Nut, Hex (#6-32)
11	301-3292	1	Panel, Mounting (Unhoused Sets)	26	860-0006	2	Spring - Relay
12	813-0097	4	Screw, Machine - Round Head (#10-32 x 5/16")	27	307-1157	1	*Relay 12 VDC
13	850-0030	4	Washer, Lock - Spring (#10)	28	307-1143	1	Socket, Relay (Less Terminals)
14	301-3284	1	Cover, Box (Housed Sets)	332-1280		8	Terminal
15	813-0097	4	Screw, Machine - Round Head (#10-32 x 5/16")	815-0392		1	Plug, Keying
16	850-0030	4	Washer, Lock - Spring (#10)				
17	301-3283	1	Box, Switch (Housed Sets)				

\* - Relay Located Within Engine Control.

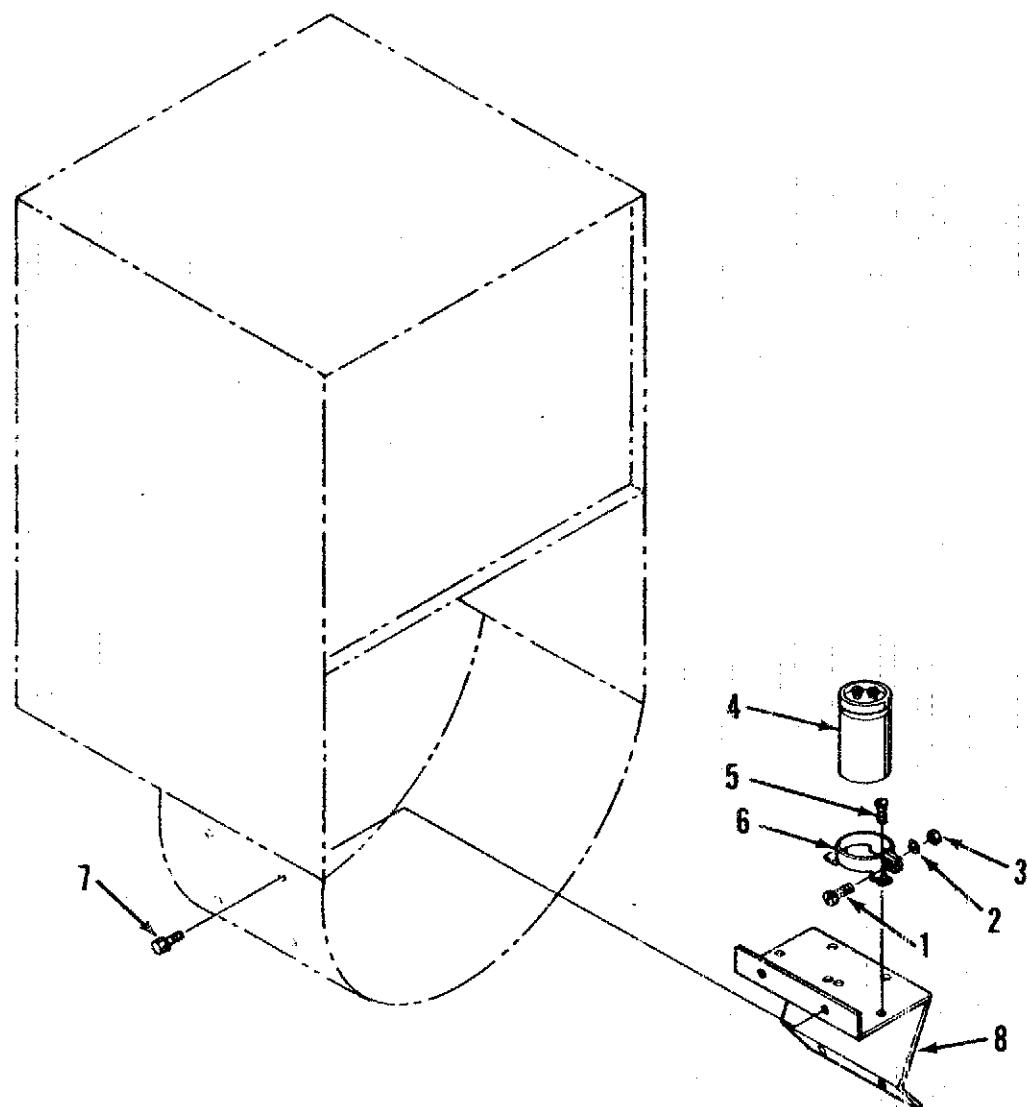
## Wattmeter



## Wattmeter

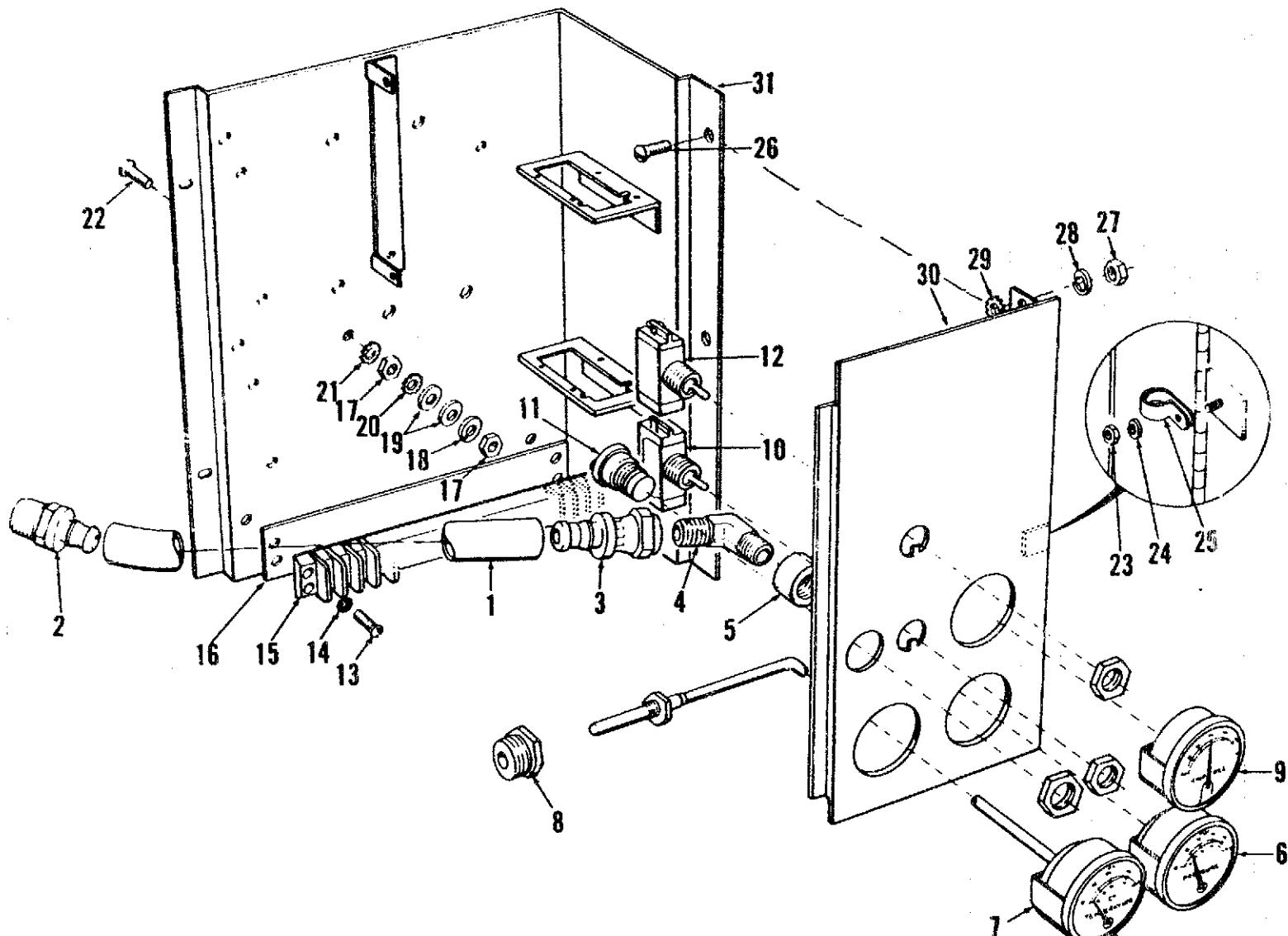
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0026	2	Screw, Machine - Truss Head (#10-32 x 3/8")	18	332-0610	1	Strip, Marker
2	853-0008	2	Washer, Lock - ET (#10)	19	302-1722	1	Wattmeter (Less Dial)
3	301-3476	1	Cover, Box (External Installation)	20	302-1721-01	1	Dial Scale 0-35 kW
4	508-0001	2	Grommet	302-1721-02	1	Scale 0-50 kW	
5	860-0008	8	Nut, Hex (#8-32)	302-1721-03	1	Scale 0-70 kW	
6	853-0005	8	Washer, Lock - ET (#8)	302-1721-04	1	Scale 0-90 kW	
7	526-0003	8	Washer, Flat (#8)	302-1721-05	1	Scale 0-115 kW	
8	402-0354	4	Mount, Vibration	302-1721-06	1	Scale 0-160 kW	
9			Transducer, Watt	302-1721-07	1	Scale 0-180 kW	
	302-1082	1	3 Phase, 60 Hertz	302-1721-08	1	Scale 0-200 kW	
	302-1083	1	3 Phase, 50 Hertz	302-1721-09	1	Scale 0-250 kW	
	302-1113	1	1 Phase, 60 Hertz	302-1721-10	1	Scale 0-300 kW	
	302-1114	1	1 Phase, 50 Hertz	302-1721-11	1	Scale 0-350 kW	
10	821-0014	8	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")	302-1721-12	1	Scale 0-400 kW	
11	402-0078	4	Mount, Vibration	302-1721-13	1	Scale 0-500 kW	
12	301-3477	1	Box (External Installation)	302-1721-14	1	Scale 0-600 kW	
13	815-0350	6	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")	302-1721-15	1	Scale 0-700 kW	
14	812-0063	4	Screw, Machine - Round Head (#6-32 x 1/2")	302-1721-16	1	Scale 0-800 kW	
15	853-0003	4	Washer, Lock - ET (#6)	302-1721-17	1	Scale 0-1200 kW	
16	860-0006	4	Nut, Hex (#6-32)	21	821-0017	2	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")
17	332-0609	1	Block, Terminal	22	862-0014	2	Nut, Hex (5/16-18)
				23	850-0045	2	Washer, Lock - Spring (5/16")
				24	301-6987	1	Bracket, Mounting (Internal Installation)

## Capacitor



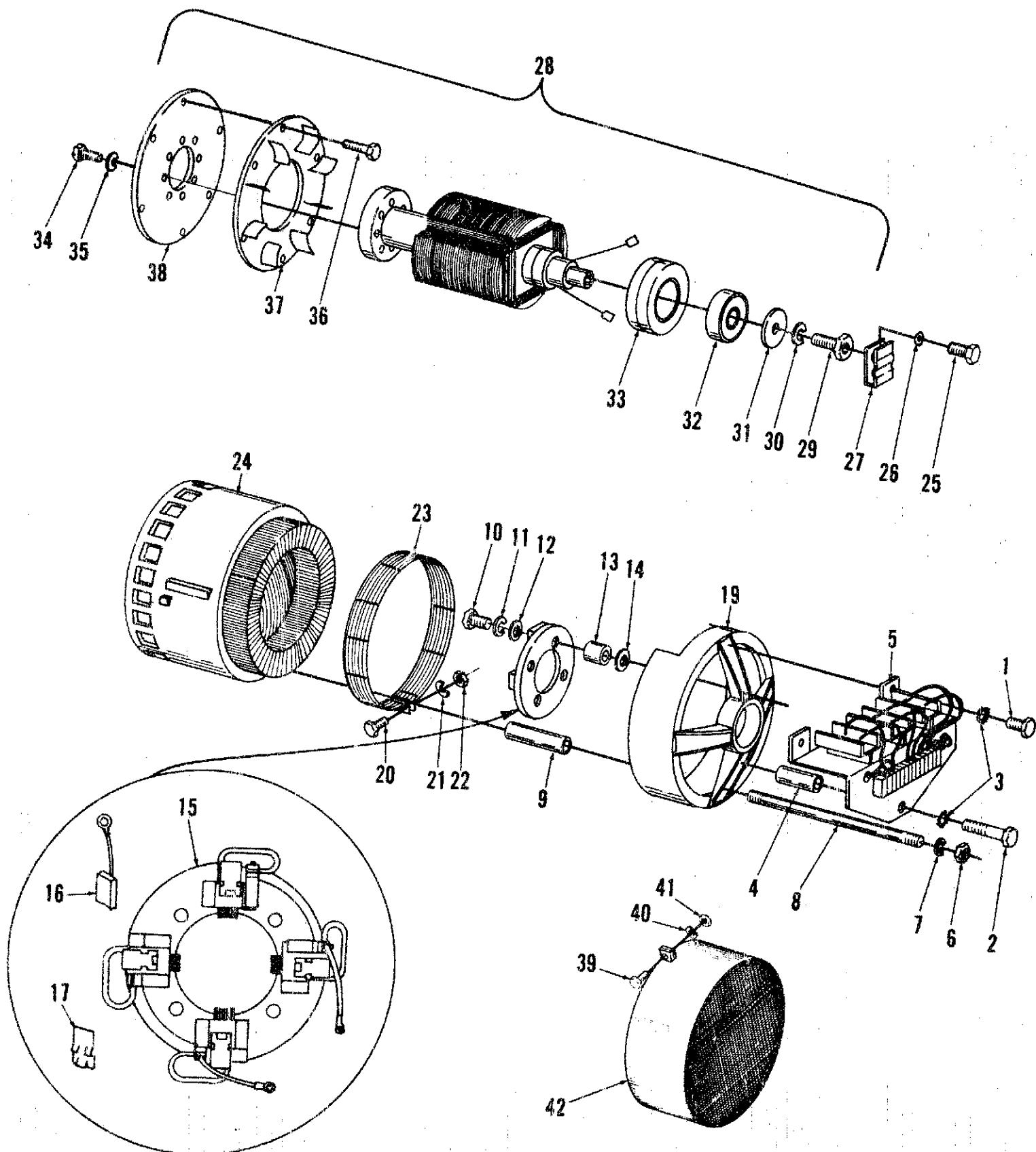
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0078	2	Screw, Machine - Round Head (#8-32 x 7/16")	6	356-0102	2	Clamp, Mounting
2	850-0025	2	Washer, Lock - Spring (#8)	7	821-0009	4	Screw, Self-locking - Hex Washer Head (1/4-20 x 3/8")
3	861-0007	2	Nut, Square (#8-32)	8	356-0104	1	Bracket, Mounting
4	356-0090	2	Capacitor				
5	812-0078	6	Screw, Machine - Round Head (#8-32 x 3/8")				

## Engine Control - Mechanical Gauges



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-1077	1	Hose	14	853-0003	2	Washer, Lock - ET (#6)
2	502-0444	1	Adapter, Pipe to Hose - Male	15	332-0795	1	Block, Terminal - 20 Place
3	502-0445	1	Adapter, Pipe to Hose - Female	16	332-1241	1	Strip, Marker
4	502-0583	1	Elbow, Pipe - 45 DEG (1/8 NPT x 7/16-20 )	17	871-0010	2	Nut, Hex - Brass (#10-32)
5	502-0051	1	Coupling, Pipe (1/8 NPT)	18	850-0030	2	Washer, Lock - Spring (#10)
6			Gauge, Pressure - Oil	19	526-0062	2	Washer, Flat - Brass (#10)
7	193-0232	1	0 - 75 PSI	20	853-0008	1	Washer, Lock - ET (#10)
	193-0233	1	0 - 150 PSI	21	856-0003	1	Washer, Lock - EIT (#10)
			Gauge, Temperature - Water (Includes Reducer)	22	815-0203	1	Screw, Machine - Round Head, Brass (#10-32 x 7/8")
	193-0234	1	72" Capillary Tube	23	870-0053	1	Nut, Hex (#10-32)
	193-0235	1	84" Capillary Tube	24	850-0030	1	Washer, Lock - Spring (#10)
	193-0236	1	96" Capillary Tube	25	332-0051	2	Clamp, Loco
	193-0305	1	144" Capillary Tube	26	815-0026	5	Screw, Machine - Truss Head (#10-32 x 3/8")
8	NFS	1	Reducer, Hex (Part of Gauge) (5/8-18 x 1/2 NPT)	27	870-0053	1	Nut, Hex (#10-32)
9	302-0061	1	Meter, Ampere	28	850-0030	1	Washer, Lock - Spring (#10)
10	308-0088	1	Switch, Toggle (DPST)	29	856-0003	1	Washer, Lock - EIT (#10)
11	308-0297	1	Switch, Push	30	301-4009	1	Panel, Control
12	308-0155	1	Switch, Toggle (SPST)	31	301-3253	1	Bracket, Mounting
13	812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")				

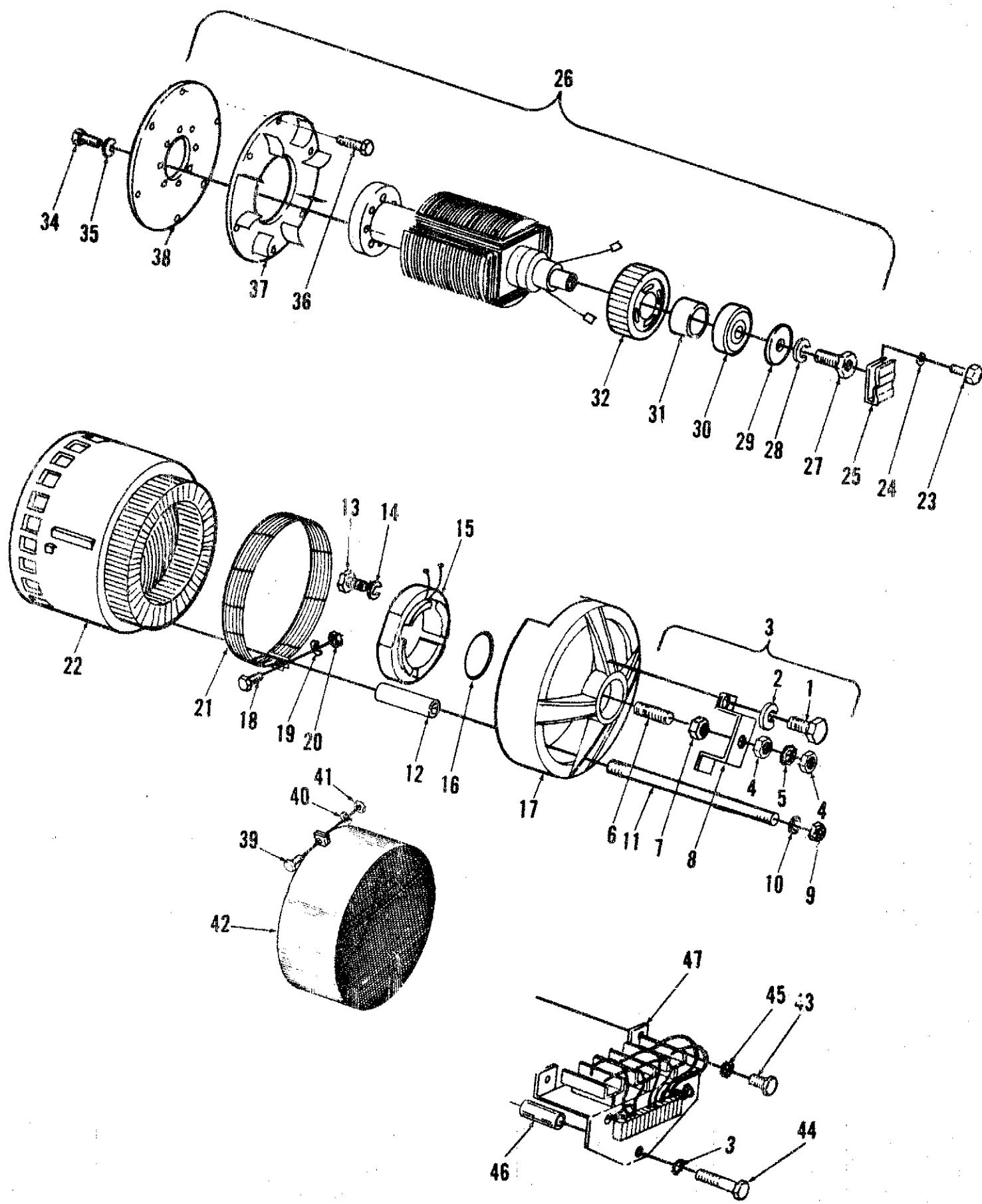
Generator - Spec C Only



## Generator - Spec C Only

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - hex Head (1/4-20 x 1/2")	220-1554	1	45.0 kW, Code 3	
2	800-0009	1	Screw, Cap - hex Head (1/4-20 x 1-1/2")	220-1454	1	45.0 kW, Code 15	
3	853-0013	3	Washer, Lock - ET (1/4")	220-1456	1	45.0 kW, Code 15 Extended Stack	
4	305-0481	2	Spacer, Sleeve	25	800-0048	1	Screw, Cap - hex Head (3/8-16 x 3/4")
5	305-0489	1	Regulator, Voltage (See Separate Page for Components)	26	856-0010	1	Washer, Lock - ET (3/8")
				27	150-0717	1	Switch
				28			Rotor Assembly, Generator (Includes Fan, Disk, Bearing, Collector)
6	862-0011	4	Nut, Hex - Grade 8 (3/8-16)	201-1643	1	25.0 kW, Code 53	
7	850-0050	4	Washer, Lock - Spring (3/8")	201-1640	1	25.0 kW, Code 515	
8			Stud	201-1643	1	25.0 kW, Code 515 Extended Stack	
	520-0721	4	3/8-16 UNC x 16-11/32"LG	201-1640	1	30.0 kW, Code 3	
	520-0723	4	3/8-16 UNC x 17-15/16"LG)	201-1643	1	30.0 kW, Code 15	
9	503-0611	4	Hose	201-1643	1	30.0 kW, Code 15 Extended Stack	
10	114-0023	4	Screw, Cap - Hex Head, Hardened (1/4-20 x 1-1/4")	201-1640	1	30.0 kW, Code 15 Extended Stack	
11	850-0040	4	Washer, Lock - Spring (1/4")	201-1643	1	37.5 kW, Code 53	
12	526-0108	4	Washer, Flat (1/4")	201-1645	1	37.5 kW, Code 515	
13	212-1225	4	Spacer, Sleeve	201-1643	1	37.5 kW, Code 515 Extended Stack	
14	526-0018	3	Washer, Flat (1/4")	201-1645	1	45.0 kW, Code 3	
15	212-0413	1	Rig, Brush (Includes Brushes and Springs)	201-1645	1	45.0 kW, Code 15	
16	214-0046	4	Brush, Generator	201-1645	1	45.0 kW, Code 15 Extended Stack	
	815-0203	4	Screw, Machine - Round Head with ET Lockwasher, Brass (#10-32 x 7/8")	201-1643	1	45.0 kW, Code 15	
	853-0008	12	Washer, Lock - ET (#10)	29	800-0513	1	45.0 kW, Code 15 Extended Stack
	526-0049	4	Washer, Flat (#10)	30	850-0079	1	Screw, Cap - Hex Head, Modified With Tapped Hole
	871-0010	8	Nut, Hex - Brass (#10-32)	31	526-0238	1	Washer, Lock - Spring (3/4")
17	212-1105	4	Spring, Brush	32	510-0101	1	Washer, Flat - Steel (3/4")
18	509-0125	1	Seal, O-Ring	33	204-0083	1	Bearing, Ball
19	211-0185	1	Bell, End	34			Ring, Collector
20	114-0023	2	Screw, Cap - Hex Head (1/4-20 x 1-1/4")	35			Bolt, Place - Hex Head, Grade 8
21	850-0040	2	Washer, Lock - Spring (1/4")	36			5/8-11 x 1"
22	862-0001	2	Nut, Hex (1/4-20)	37	805-0033	8	5/8-11 x 1-1/2"
23	234-0368	1	Screen, Air	38	805-0035	8	Washer, Flat - Hardened (5/8")
24			Stator Assembly, Generator	39	526-0259	8	Bolt, Place - Hex Head, Grade 8
	220-1552	1	25.0 kW, Code 53	40	205-0018	8	3/8-16 x 1"
	220-1451	1	25.0 kW, Code 515	41	805-0019	8	3/8-16 x 1-1/4"
	220-1454	1	25.0 kW, Code 515 Extended Stack	42	205-0089	1	Fan, Cooling
	220-1552	1	30.0 kW, Code 3	43	232-2078	1	Disk, Drive
	220-1451	1	30.0 kW, Code 15	44	800-0008	1	Screw, Cap - Hex Head (1/4-20 x 1-1/4")
	220-1454	1	30.0 kW, Code 15 Extended Stack	45	850-0040	1	Washer, Lock - Spring (1/4")
	220-1554	1	37.5 kW, Code 53	46	862-0001	1	Nut, Hex (1/4-20)
	220-1454	1	37.5 kW, Code 515	47	234-0369	1	Cover (Used On Housed Sets Only)
	220-1456	1	37.5 kW, Code 515 Extended Stack				

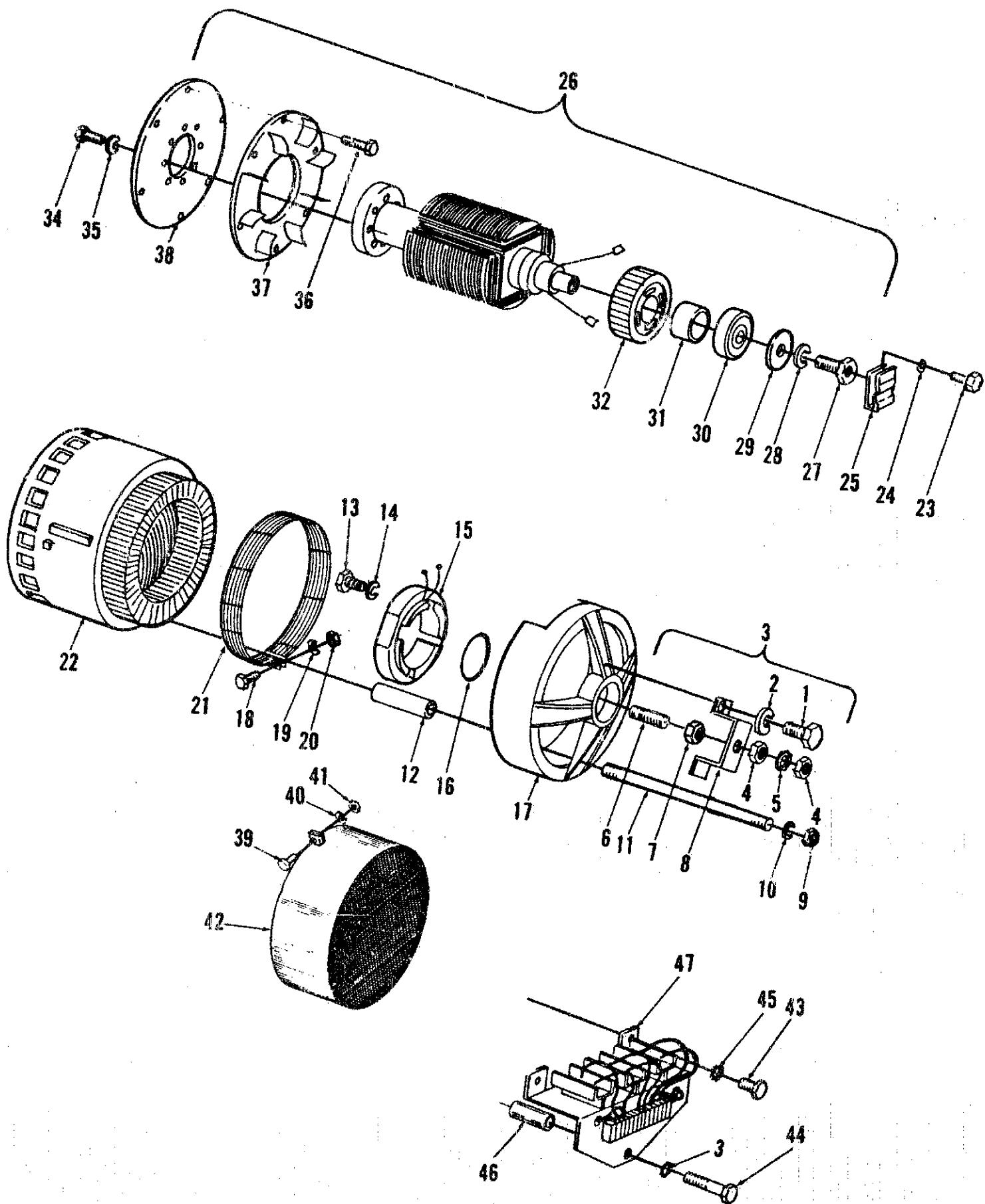
Generator - Begin Spec D  
EK SET ONLY



**Generator - Begin Spec D**  
**EK SET ONLY**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	26			Rotor Assembly, Generator (Includes Fan, Disk, Bearing, Exciter)
2	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2")	201-2669	1		25.0 kW Code 53
3	150-1456	1	Contact Assembly (Includes Contact and Mounting Bracket) Begin 1976, Spec F	201-2687	1		25.0 kW Code 53 Environmental Protected
4	862-0001	2	Nut, Hex (1/4-20)	201-2666	1		25.0 kW Code 515
5	853-0013	1	Washer, Lock - ET (1/4")	201-2669	1		25.0 kW Code 515 Extended Stack
6	150-0723	1	Contact, Electrical	201-2687	1		30.0 kW Code 3
7	870-0250	1	Nut, Insulated	201-2666	1		30.0 kW Code 3 Environmental Protected
8	150-1356	1	Bracket, Mounting	201-2668	1		30.0 kW Code 6D, 9X, 15
9	862-0011	4	Nut, Hex - Grade 8 (3/8-16)	201-2668	1		30.0 kW Code 7
10	850-0050	4	Washer, Lock - Spring (3/8")	201-2669	1		30.0 kW Code 15 Extended Stack
11			Stud	201-2684	1		30.0 kW Code 15 Environmental Protected
	520-0721	4	3/8-16 UNC x 16-11/32"	201-2687	1		30.0 kW Code 15 Extended Stack And Environmental Protected
	520-0723	4	3/8-16 UNC x 17-15/16"	201-2687	1		Screw, Cap - Hex Head, Modified With Tapped Hole
12	503-0611	4	Hose	201-2687	1		Washer, Lock - Spring (3/4")
13	800-0009	4	Screw, Cap - Hex Head (1/4-20 x 1-1/2")	27	800-0513	1	Washer, Flat - Steel Alloy (3/4")
14	850-0040	4	Washer, Lock - Spring (1/4")	28	850-0079	1	Bearing, Ball
15			Stator, Exciter	29	526-0238	1	Spacer, Sleeve
	220-1528	1	Standard Spec G Through E	30	510-0101	1	Rotor, Assembly - Exciter (See Separate Page for Components)
	220-2353	1	Standard Begin Spec F	31	232-2102	1	Standard
	220-1774	1	Environmental Protected	32			Environmental Protected
			Begin Spec F	33	515-0145	1	Key, Machine (1/4" x 1/4" x 7/8")
16	509-0125	1	Seal, O-Ring	34			Bolt, Place - Hex Head, Grade 8
17	211-0185	1	Bell, End	35	805-0033	9	5/8-11 x 1"
18	114-0023	2	Screw, Cap - Hex Head (1/4-20 x 1-1/4")	36	805-0035	8	5/8-11 x 1-1/2"
19	850-0040	2	Washer, Lock - Spring (1/4")	37	526-0259	8	Washer, Flat - Hardened (5/8")
20	862-0001	2	Nut, Hex (1/4-20)	38	805-0018	8	Bolt, Place - Hex Head, Grade 8
21	234-0368	1	Screen, Air	39	805-0019	8	3/8-16 x 1"
22			Stator Assembly, Generator	40	205-0089	1	3/8-16 x 1-1/4"
	220-1552	1	25.0 kW, Code 53	41	232-2078	1	Fan, Cooling Disk, Drive
	220-1845	1	25.0 kW, Code 53 Environmental Protected	42	800-0008	1	Screw, Cap - Hex Head (1/4-20 x 1-1/4")
			25.0 kW, Code 515	43	850-0040	1	Washer, Lock - Spring (1/4")
			25.0 kW, Code 515 Extended Stack	44	862-0001	1	Nut, Hex (1/4-20)
			30.0 kW, Code 3	45	234-0369	1	Cover (Housed Sets Only)
			30.0 kW, Code 3 Environmental Protected	46	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")
			30.0 kW, Code 6D	47	853-0013	1	Screw, Cap - Hex Head (1/4-20 x 1-1/2")
			30.0 kW, Code 7	48	305-0481	2	Washer, Lock - ET (1/4")
			30.0 kW, Code 9X	49	305-0491	1	Spacer, Sleeve
			30.0 kW, Code 15				Regulator, Voltage (See Separate Page for Component) 1971 Thru 1975, Spec D & E
			30.0 kW, Code 15 Extended Stack				
			30.0 kW, Code 15 Environmental Protected				
23	800-0048	1	Screw, Cap - Hex Head (3/8-16 x 3/4")				
24	856-0010	1	Washer, Lock - EIT (3/8")				
25	150-0717	1	Switch				

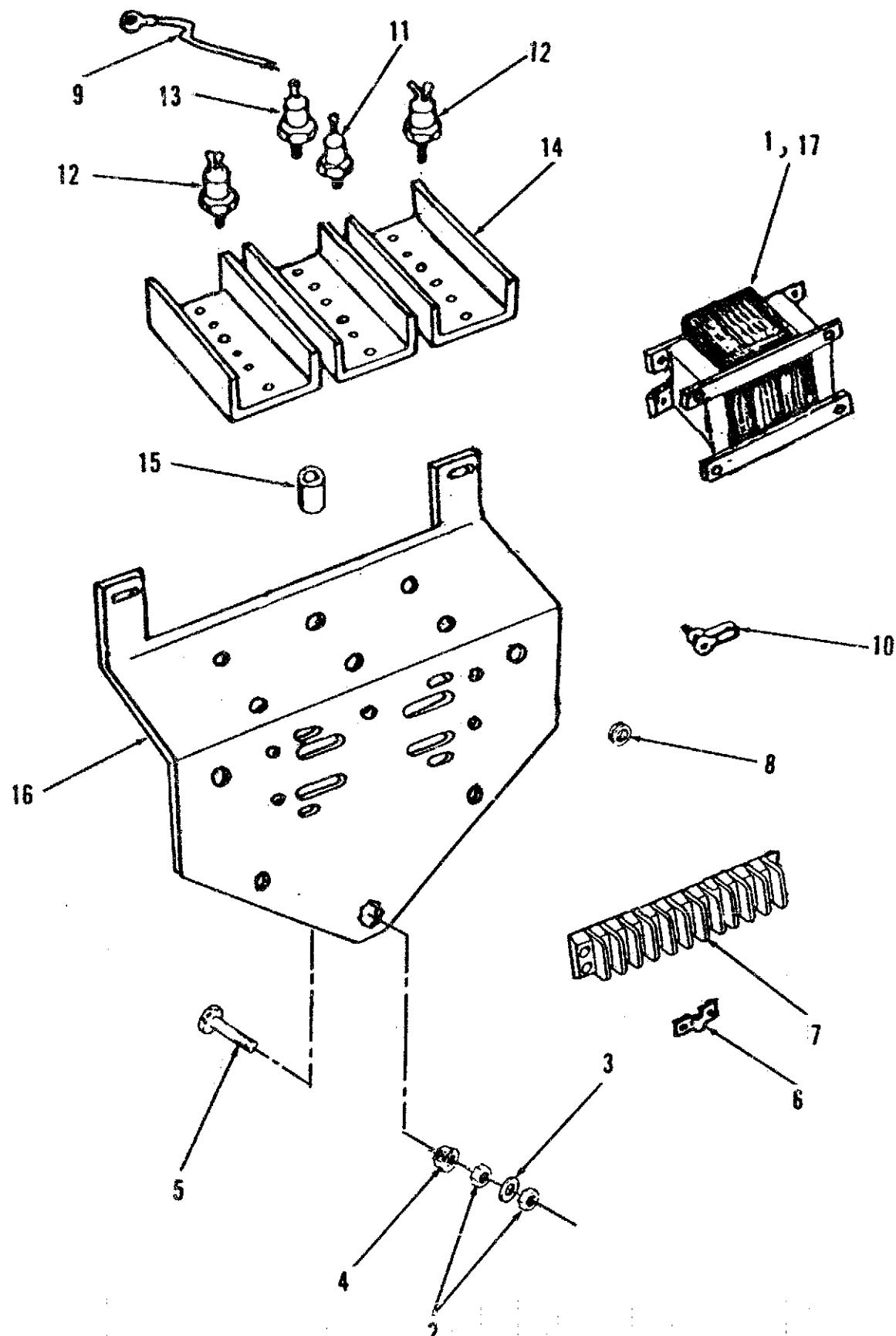
Generator - Begin Spec D  
EM SET ONLY



**Generator - Begin Spec D**  
**EM SET ONLY**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	26			Rotor Assembly, Generator (Includes Fan, Disk, Bearing, Exciter)
2	800-0009	2	Screw, Cap - Hex Head (1/4-20 x 1-1/2")	201-2671	1	37.5 kW Code 53	
3	150-1456	1	Contact Assembly (Includes Contact and Mounting Bracket) Begin 1976, Spec F	201-2689	1	37.5 kW Code 53 Environmental Protected	
4	862-0001	2	Nut, Hex (1/4-20)	201-2669	1	37.5 kW Code 515	
5	853-0013	1	Washer, Lock - ET (1/4")	201-2671	1	37.5 kW Code 515 Extended	
6	150-0723	1	Contact, Electrical	201-2689	1	Stack	
7	870-0250	1	Nut, Insulated	201-2669	1	45.0 kW Code 3	
8	150-1356	1	Bracket, Mounting	201-2671	1	45.0 kW Code 3 Environmental Protected	
9	862-0011	4	Nut, Hex - Grade 8 (3/8-16)	201-2671	1	45.0 kW Code 15	
10	850-0050	4	Washer, Lock - Spring (3/8")	201-2687	1	45.0 kW Code 15 Extended	
11			Stud	201-2689	1	Stack	
	520-0721	4	3/8-16 UNC x 16-11/32"	201-2689	1	45.0 kW Code 15 Environmental Protected	
	520-0723	4	3/8-16 UNC x 17-15/16"	201-2689	1	45.0 kW Code 15 Extended	
12	503-0611	4	Hose			Stack And Environmental Protected	
13	800-0009	4	Screw, Cap - Hex Head (1/4-20 x 1-1/2")	27	800-0513	1	Screw, Cap - Hex Head, Modified With Tapped Hole
14	850-0040	4	Washer, Lock - Spring (1/4")	28	850-0079	1	Washer, Lock - Spring (3/4")
15			Stator, Exciter	29	526-0238	1	Washer, Flat - Steel (3/4")
	220-1528	1	Standard Spec C Through E	30	510-0101	1	Bearing, Ball
	220-2353	1	Standard Begin Spec F	31	232-2102	1	Spacer, Sleeve
	220-1774	1	Environmental Protected Begin Spec F	32			Rotor, Assembly - Exciter (See Separate Page for Components)
16	509-0125	1	Seal, O-Ring	201-1739	1	Standard	
17	211-0185	1	Bell, End	201-1845	1	Environmental Protected	
18	114-0023	2	Screw, Cap - Hex Head (1/4-20 x 1-1/4")	33	515-0145	1	Key, Machine (1/4" x 1/4" x 7/8")
19	850-0040	2	Washer, Lock - Spring (1/4")	34			Bolt, Place - Hex Head, Grade 8
20	862-0001	2	Nut, Hex (1/4-20)	805-0033	8	5/8-11 x 1"	
21	234-0368	1	Screen, Air	805-0035	8	5/8-11 x 1-1/2"	
22			Stator Assembly, Generator	35	526-0259	8	Washer, Flat - Hardened (5/8")
	220-1554	1	37.5 kW, Code 53	36			Bolt, Place - Hex Head, Grade 8
	220-1847	1	37.5 kW, Code 53 Environmental Protected	805-0018	8	3/8-16 x 1"	
	220-1997	1	37.5 kW, Code 515	805-0019	8	3/8-16 x 1-1/4"	
	220-1999	1	37.5 kW, Code 515 Extended Stack	37	205-0089	1	Fan, Cooling
			45.0 kW, Code 3	38	232-2078	1	Disk, Drive
	220-1554	1	45.0 kW, Code 3 Environmental Protected	39	800-0008	1	Screw, Cap - Hex Head (1/4-20 x 1-1/4")
	220-1847	1	45.0 kW, Code 3 Environmental Protected	40	850-0040	1	Washer, Lock - Spring (1/4")
	220-2624	1	45.0 kW, Code 6D	41	862-0001	1	Nut, Hex (1/4-20)
	220-2462	1	45.0 kW, Code 7	42	234-0369	1	Cover (Housed Sets Only)
	220-1602	1	45.0 kW, Code 9X	43	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")
	220-1454	1	45.0 kW, Code 15	44	800-0009	1	Screw, Cap - Hex Head (1/4-20 x 1-1/2")
	220-1456	1	45.0 kW, Code 15 Extended Stack	45	853-0013	3	Washer, Lock - ET (1/4")
	220-1786	1	45.0 kW, Code 15 Environmental Protected	46	305-0481	2	Spacer, Sleeve
	220-1788	1	45.0 kW, Code 15 Extended Stack And Environmental Protected	47	305-0491	1	Regulator, Voltage (See Separate Page for Component)
23	800-0048	1	Screw, Cap - Hex Head (3/8-16 x 3/4")				1971 Thru 1975, Spec D & E
24	856-0010	1	Washer, Lock - EIT (3/8")				
25	150-0717	1	Switch				

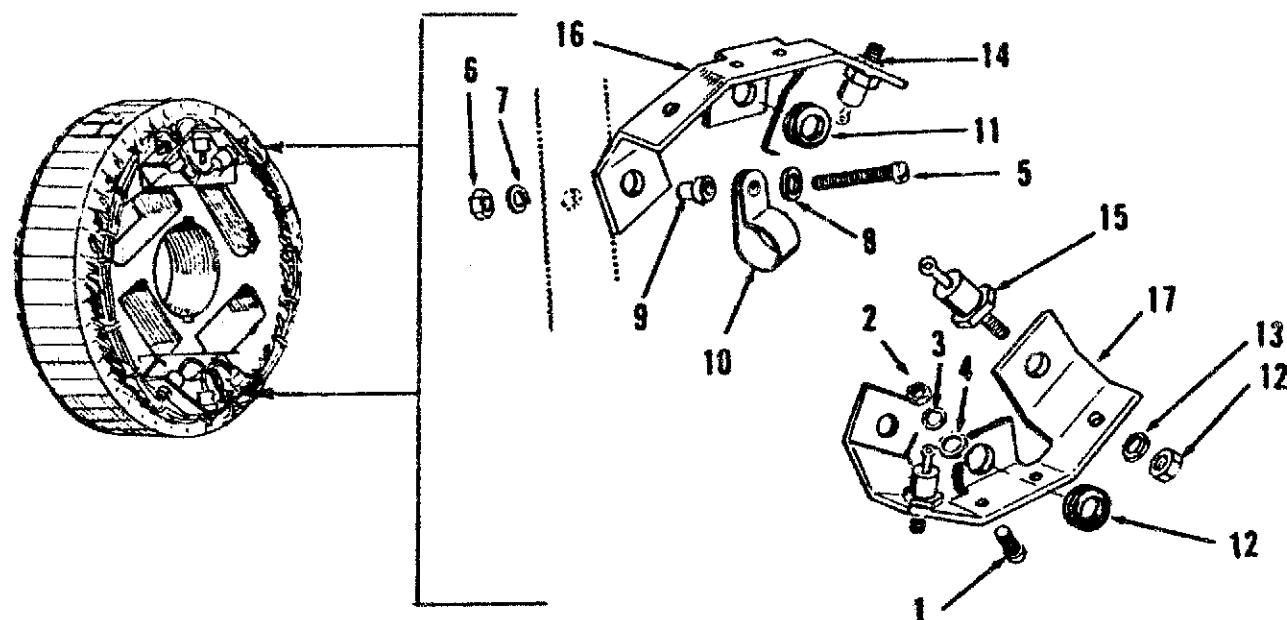
## Voltage Regulator



## Voltage Regulator

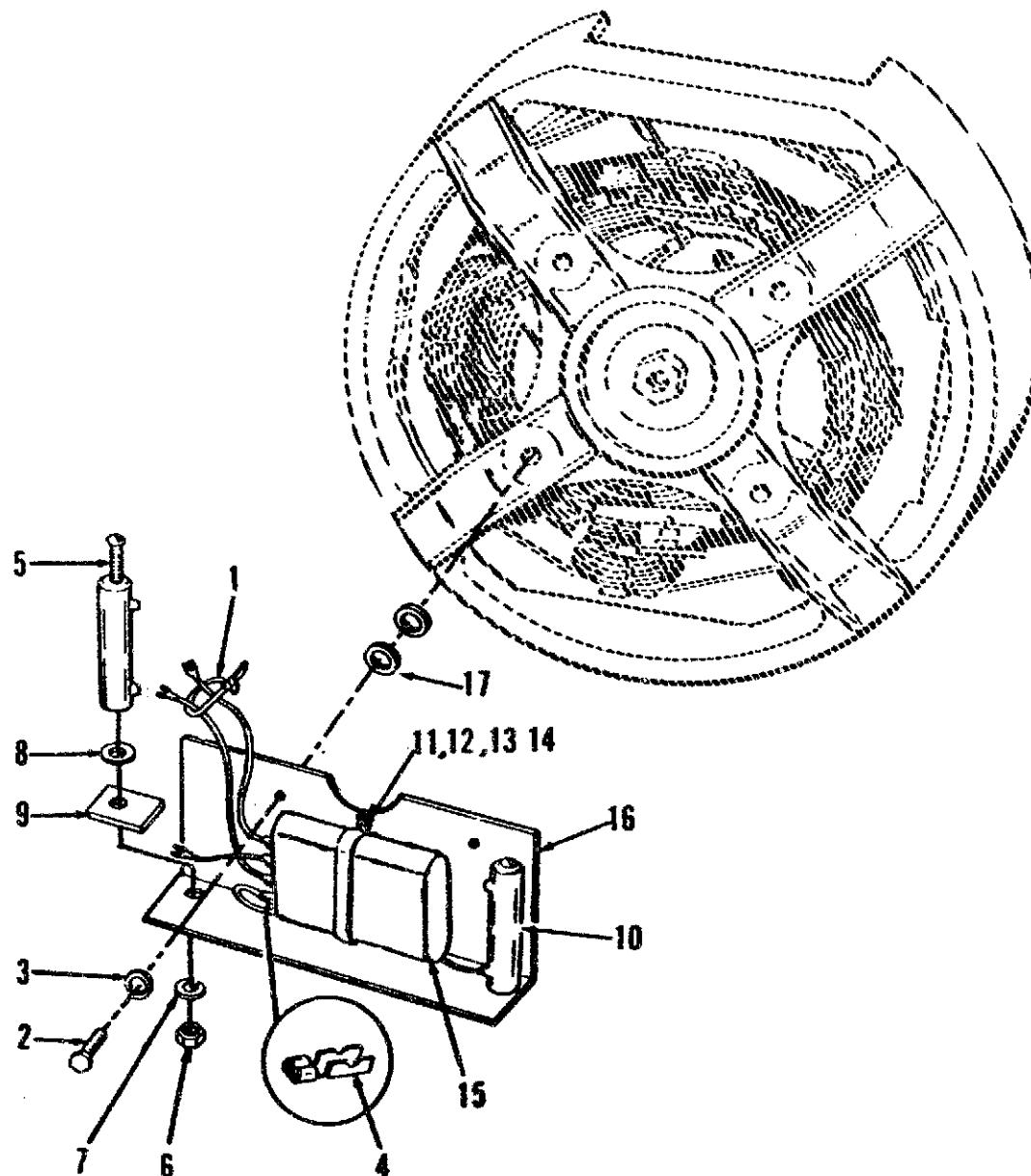
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Regulator, Voltage - Brush Generators 25 kW Through 40 kW, Code 3, 53	10	332-1415	1	Clamp, Cable
305-0489	1		25 kW Through 55 kW, Code 15, 515	11	358-0029	1	Rectifier CR3
305-0489	1		60 kW Through 90 kW, Code 15, 515	871-0010	1	Nut, Hex - Brass (#10-32)	
305-0483	1		Brushless Generators, All Codes	850-0030	1	Washer, Lock - Spring (#10)	
305-0491	1		Reactor L1	526-0009	1	Washer, Flat (#10 and #12)	
1			Part of 305-0483 Regulator	12			Rectifier Q4, Q5
315-0339	1		Part of 305-0489 Regulator	364-0012	2	Part of 305-0483 Regulator	
315-0341	1		Screw, Machine - Round Head (#10-32 x 1/2")	364-0012	2	Part of 305-0489 Regulator	
813-0100	4		Washer, Lock - ET (#10)	364-0014	2	Part of 305-0491 Regulator	
853-0008	4		2	871-0018	2	Nut, Hex - Brass (1/4-20)	
862-0001	2		Nut, Hex (1/4-20)	850-0040	2	Washer, Lock - Spring (1/4")	
3 853-0013	1		Washer, Lock - ET (1/4")	526-0018	2	Washer, Flat (1/4")	
4 870-0250	1		4	363-0048	3	Rectifier CR1, CR2	
5 150-0723	1		Nut, Insulating (1/4")	812-0077	12	Part of 305-0483 Regulator	
6 332-1043	2		Contact, Electrical	853-0005	12	Part of 305-0489 Regulator	
7 332-1266	1		Jumper, Terminal	332-1265	6	Part of 305-0491 Regulator	
812-0081	2		Block, Terminal	305-0482	1	Chassis	
			Screw, Machine - Round Head (#8-32 x 5/8")	315-0343	1	Reactor L1	
853-0005	2		Washer, Lock - ET (#8)	812-0077	2	Sink, Heat	
860-0008	2		Nut, Hex (#8-32)	853-0005	2	Screw, Machine - Round Head (#8-32 x 3/8")	
508-0002	2		Grommet	860-0008	2	Washer, Lock - ET (#8)	
9 NFS	3		Lead, Electrical			Insulator	
812-0079	3		Screw, Machine - Round Head (#8-32 x 1/2")			Chassis	
853-0005	3		Washer, Lock - ET (#8)			Part of 305-0491 Regulator	
526-0048	2		Washer, Flat - Brass (#8)			Screw, Machine - Round Head (#8-32 x 3/8")	
871-0007	3		Nut, Hex - Brass (#8-32)			Washer, Lock - ET (#8)	
						Nut, Hex (#8-32)	

## Exciter Rotor



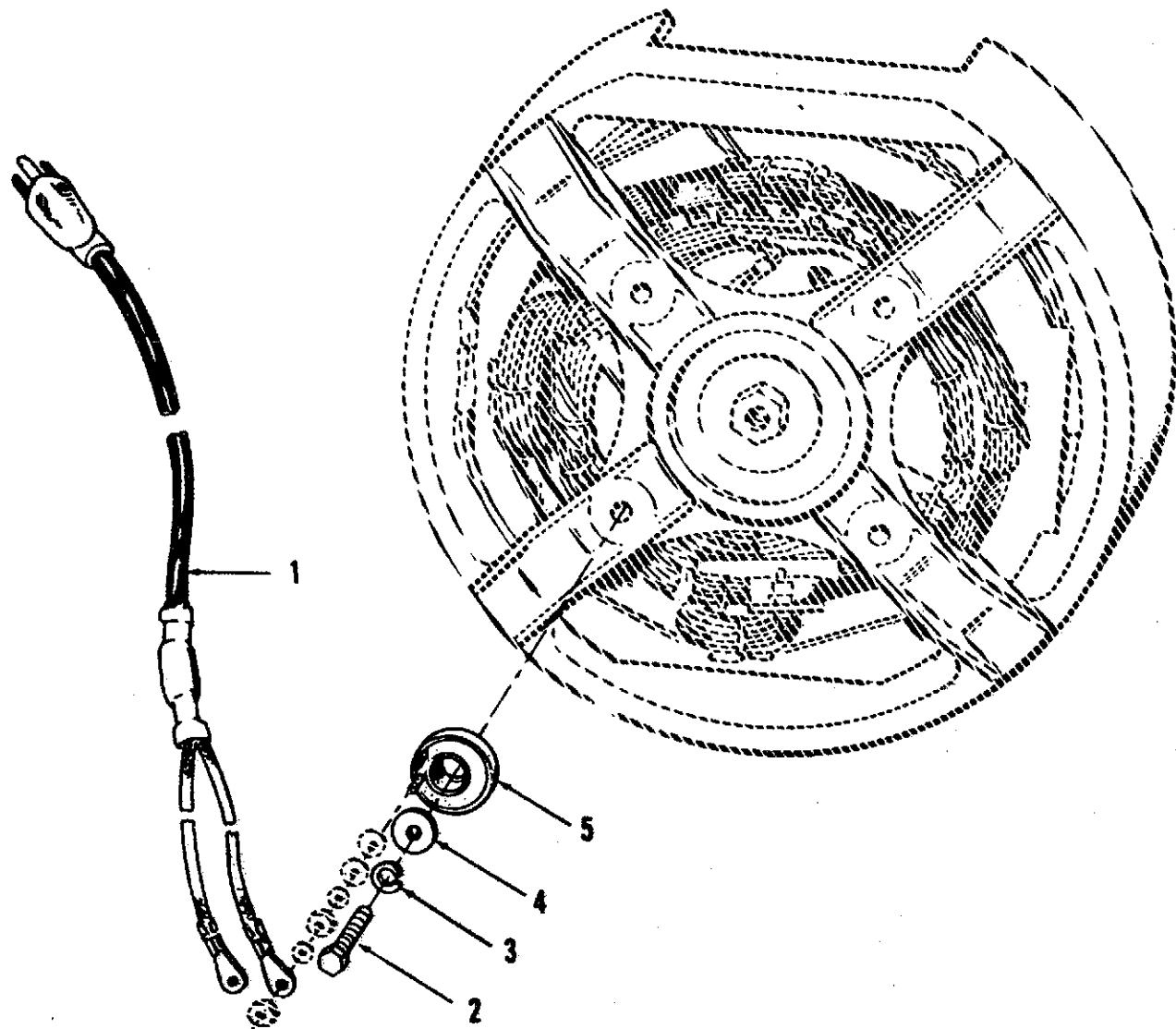
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")	12	870-0053	6	Nut, Hex (#10-32)
2	870-0053	2	Nut, Hex (#10-32)	13	850-0030	6	Washer, Lock - Spring (#10)
3	850-0030	2	Washer, Lock - Spring (#10)	14			Rectifier - Positive CR1, CR2, CR3
4	526-0008	2	Washer, Flat (#10)	358-0097		3	Standard
5	813-0110	4	Screw, Machine - Round Head (#10-32 x 2")	358-0044		3	Environmental Protected
6	870-0053	4	Nut, Hex (#10-32)	15			Rectifier - Negative CR4, CR5, CR6
7	850-0030	4	Washer, Lock - Spring (#10)	358-0096		3	Standard
8	526-0009	4	Washer, Flat (#10 and #12)	358-0043		3	Environmental Protected
9	508-0187	4	Spacer, Stepped	16	363-0054	1	Sink, Heat
10	332-0050	2	Clamp, Loop	17	363-0055	1	Sink, Heat
11	508-0093	2	Grommet				

## Voltage Regulator Filter



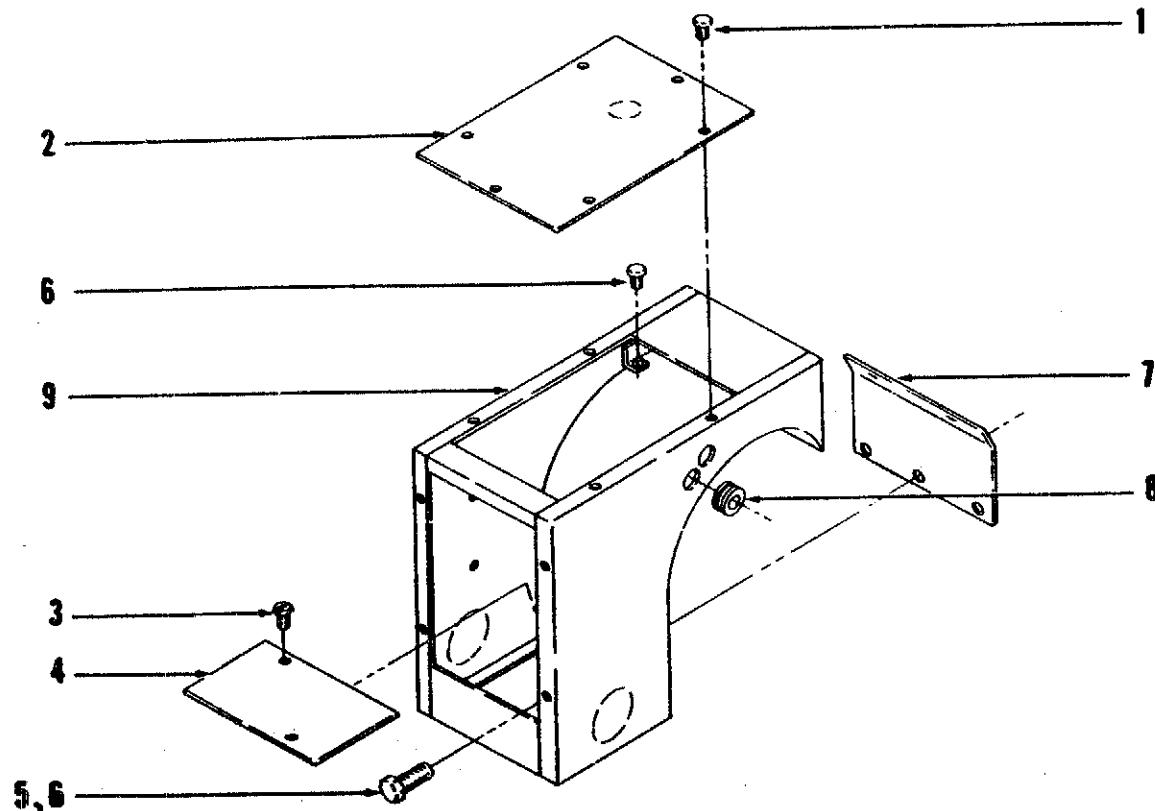
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION	
1	332-0941	5	Tie, Cable	8	304-0427	4	Washer, Centering	
2	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	9	304-0292	2	Insulator	
3	850-0040	2	Washer, Lock - Spring (1/4")	10	354-0025	2	Resistor	
4	332-0529	2	Terminal	11	813-0098	2	Screw, Machine - Round Head (#10-32 x 3/8")	
	332-1279	4	Bare (14-18 AWG)	12	870-0053	2	Nut, Hex (#10-32)	
	5	812-0165	8	Insulated (14-18 AWG)	13	850-0030	2	Washer, Lock - Spring (#10)
6	862-0001	2	Screw, Machine - Round Head (1/4-20 x 4-1/2")	14	312-0189	1	Bracket, Mounting	
7	850-0040	2	Nut, Hex (1/4-20)	15	312-0188	1	Capacitor	
			Washer, Lock - Spring (1/4")	16	232-2218	1	Bracket, Mounting	
				17	526-0018	15	Washer, Flat (1/4")	

## Generator Heater



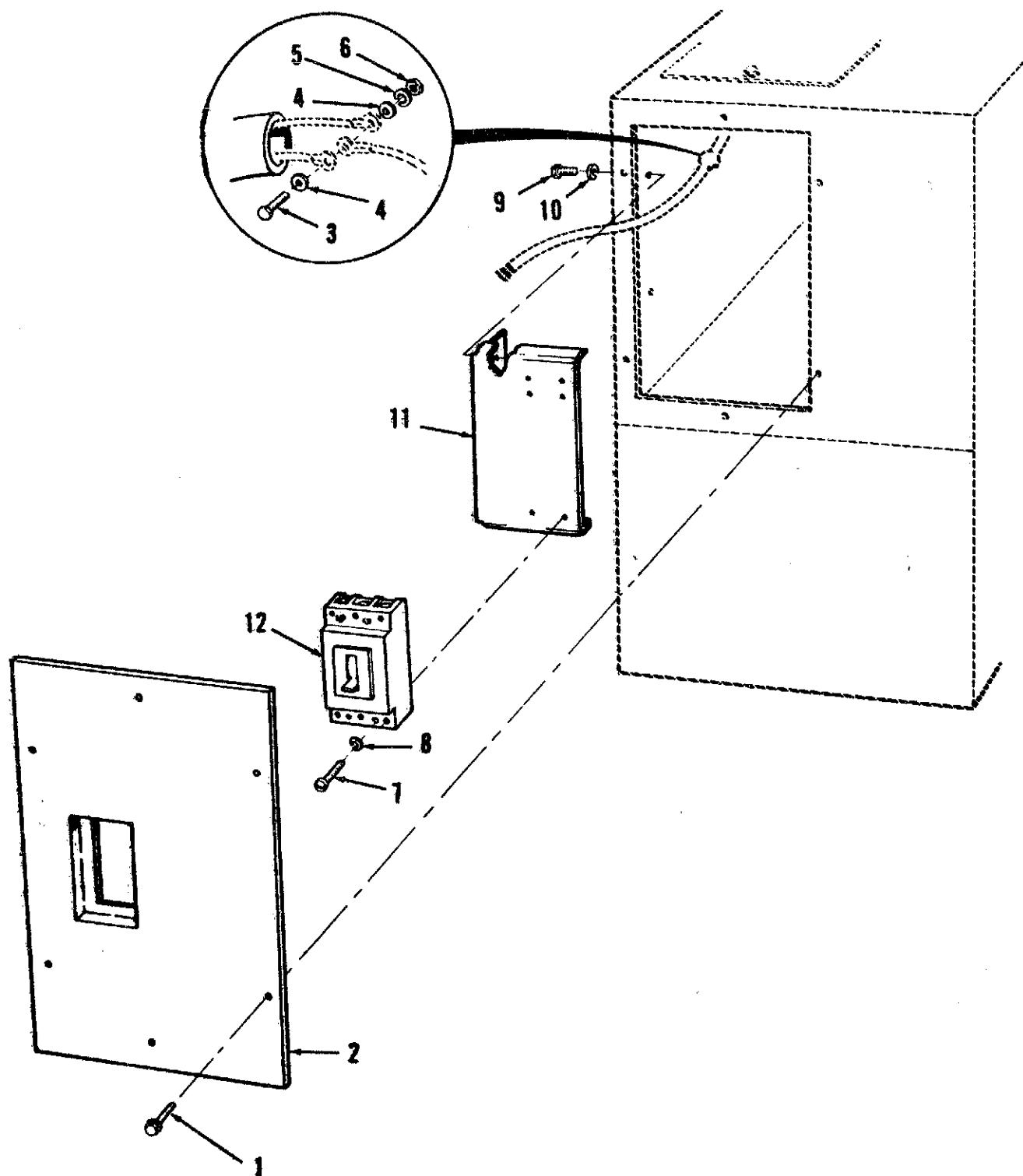
REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Cable, Electrical (Includes Thermostat and (2) Grommets)	3	850-0038	1	Washer, Lock - Spring (1/4")
335-0146	335-0147	1	120 VAC	4	526-0158	1	Washer, Flat (1/4")
		1	240 VAC	5	333-0059	1	Heater, Electrical
2	800-0004	1	Screw, Cap - Hex Head (1/4-20 x 5/8")		333-0192	1	125 Watt, 120 VAC
						1	200 Watt, 240 VAC

## Output Box



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0005	12	Screw, Self-locking - Hex Washer Head (#10-32 x 1/2")	6	821-0010	2	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")
2	301-3156	2	Panel, Access	7	301-3196	1	Bracket, Support
3	815-0030	2	Screw, Tapping - Hex Head, Slotted (#10-32 x 3/8")	8	508-0203	2	Bushing
4	301-3195	1	Plate, Access - Bottom	9	301-3191	1	Box, Output
5	821-0014	2	Screw, Self-locking - Hex Washer Head (5/16-18 x 1/2")				

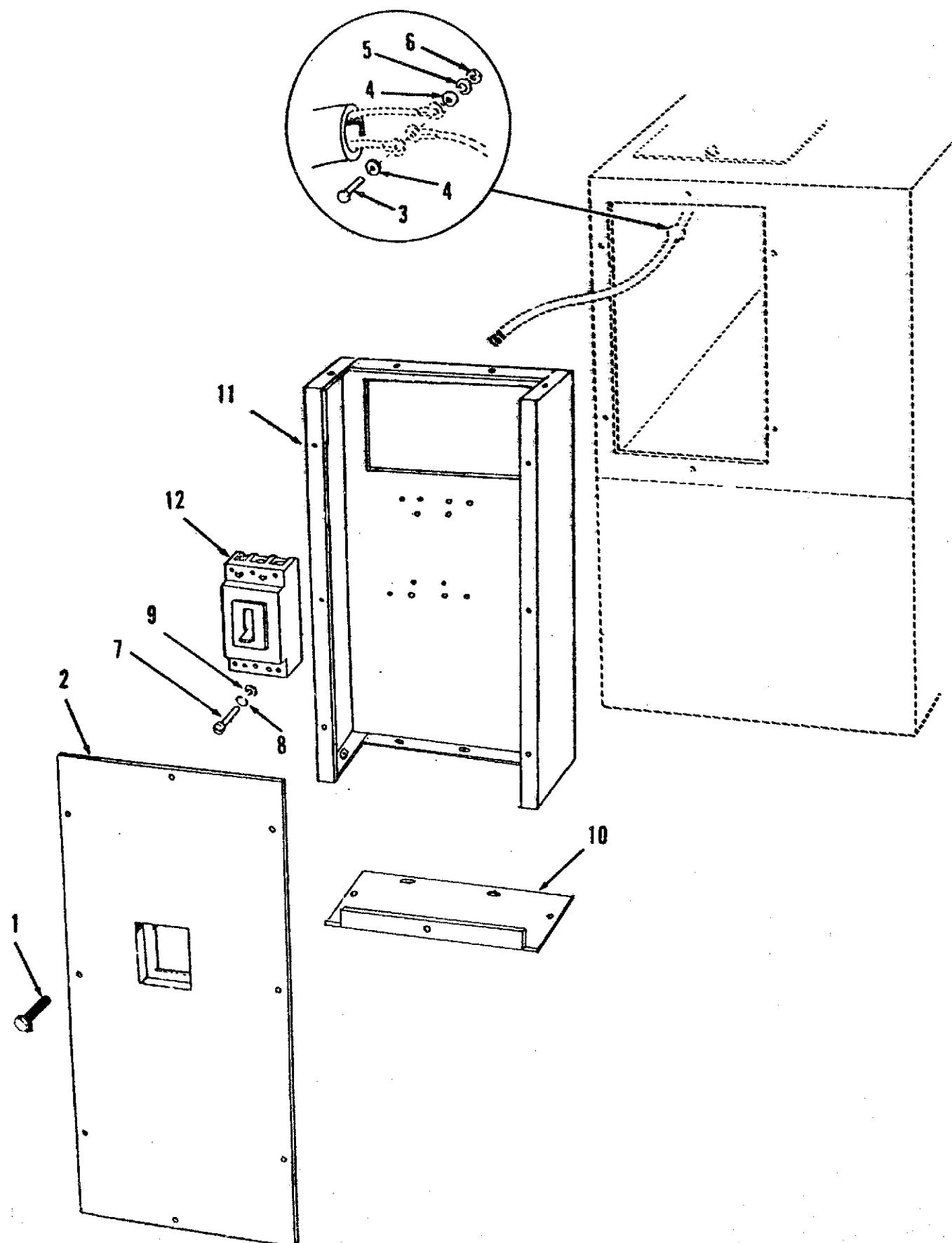
## Circuit Breaker - Spec C Through P



## Circuit Breaker - Spec C Through P

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0350	6	Screw, Tapping - Hex Washer Head (#10-32 x 3/8")	12			Circuit Breaker (Voltage application in parens)
2	301-3192	1	Cover				<b>EK GEN SET</b>
3	800-0028	5	Screw, Cap - Hex Head (5/16-18 x 1")	320-0415	1	40Amp (347/600V, 3 Phase)	
4	526-0022	10	Washer, Flat (5/16")	320-0413	1	50Amp (277/480V, 3 Phase)	
5	850-0045	5	Washer, Lock - Spring (5/16")	320-0384	1	60Amp (220/380V, 3 Phase)	
6	862-0015	5	Nut, Hex (5/16-18)	320-0384	1	60Amp (200/346V, 3 Phase)	
7	812-0094	4	Screw, Machine - Round Head (#8-32 x 3-5/8")	320-0411	1	90Amp (120/240V, 3 Phase)	
8	850-0025	4	Washer, Lock - Spring (#8)	320-0412	1	100Amp (120/208V, 3 Phase)	
9	800-0003	2	Screw, Cap - Hex Head (1/4-20 x 1/2")	320-0344	1	175Amp (120/240V, 1 Phase)	
10	850-0040	2	Washer, Lock - Spring (1/4")	320-0416	1	<b>EM GEN SET</b>	
11	301-3197	1	Bracket, Mounting	320-0414	1	60Amp (347/600V 3 Phase)	
				320-0379	1	70Amp (277/480V 3 Phase)	
				320-0379	1	90Amp (220/380V 3 Phase)	
				320-0346	1	90Amp (200/346V 3 Phase)	
				320-0346	1	150Amp (120/240V 3 Phase)	
				320-0359	1	150Amp (120/208V 3 Phase)	
						225Amp (120/240V 1 Phase)	

Circuit Breaker - Begin Spec R



## Circuit Breaker - Begin Spec R

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0010	22	Screw, Self-locking - Hex Washer Head (1/4-20 x 1/2")	12			Breaker, Circuit (Voltage Application in Parenthesis) <b>EK SET ONLY</b>
2	301-9892	1	Cover For Breaker Marked *	320-1458-28	1	• 40 Amp (347/600V, 3 Phase)	
	301-9682	1	For Breaker Marked @	320-1458-23	1	• 50 Amp (277/480V, 3 Phase)	
3	800-0028	5	Screw, Cap - Hex Head (5/16-18 x 1")	320-1458-24	1	• 60 Amp (220/380V, 3 Phase)	
4	526-0022	5	Washer, Flat (5/16")	320-1458-24	1	• 60 Amp (200/346V, 3 Phase)	
5	850-0045	5	Washer, Lock - Spring (5/16")	320-1458-29	1	• 90 Amp (120/240V, 3 Phase)	
6	862-0015	5	Nut, Hex (5/16-18)	320-1512-08	1	• 110 Amp (120/208V, 3 Phase)	
7	812-0165	4	Screw, Machine - Round Head 1/4-20 x 4-1/2" For Breaker Marked *	320-1518-08	1	* 175 Amp (120/240V, 1 Phase)	
	812-0094	4	#8-32 x 3-5/8" For Breaker Marked @	320-1458-41	1	EM SET ONLY • 60 Amp (347/600V, 3 Phase)	
	813-0118	4	10-32 x 4-1/2" For Breaker Marked * - Begin Spec T	320-1458-25	1	• 70 Amp (277/480V, 3 Phase)	
	812-0157	4	1/4-20 x 1-3/4" For Breaker Marked * - Begin Spec T	320-1458-27	1	• 90 Amp (220/380V, 3 Phase)	
8			Washer, Lock - Spring	320-1458-27	1	• 90 Amp (200/346V, 3 Phase)	
	850-0040	4	1/4" For Breaker Marked *	320-1458-31	1	• 150 Amp (120/240V, 3 Phase)	
	850-0025	4	#8 For Breaker Marked @	320-1459-08	1	* 175 Amp (120/208V, 3 Phase)	
9			Washer, Flat	320-1512-10	1	* 225 Amp (120/240V, 1 Phase)	
	526-0108	4	1/4" For Breaker Marked *	320-1555-11	1	* 250 Amp (120/240V, 1 Phase)	
	526-0028	4	#8 For Breaker Marked @	320-1555-07	1	* 150 Amp (120/240V, 3 Phase)	
	526-0008	4	#10 For Breaker Marked *	320-1555-08	1	* 175 Amp (120/208V, 3 Phase)	
	526-0048	4	#8 For Breaker Marked @	320-1555-09	1	* 200 Amp (120/240V, 3 Phase)	
10	301-9669	2	Panel, Box	320-1557-51	1	* 250 Amp (120/240V, 3 Phase)	
11	301-9668	1	Box	320-1466-25	1	• 70 Amp (270/480V, 3 Phase)	

\* - Parts used with Breaker Marked \*.

@ - Parts used with Breaker Marked @.

## Labels, Paint, Thread Sealant

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	98-5262	2	Silkscreen - ONAN		98-5298	1	Silkscreen, Panel Front -
	98-0983	1	Silkscreen, Oil Drain		98-5299	1	Vertical Silkscreen, Panel Rear -
	98-2235	2	Silkscreen, Ground		98-5387	2	Vertical Label, Danger
	98-1875	1	Silkscreen, Rating (Gas Fuel)		98-2304	1	Silkscreen, Circuit Breaker
	98-1638	1	Silkscreen, Warning		98-5662	1	Silkscreen, Emergency Stop
	98-2184	1	Decal, Governor		98-3232	1	Silkscreen, Warning
	98-5393	2	Label, Warning		98-5663	1	Silkscreen, Caution
	98-0961	1	Silkscreen, Water Level		525-0305	1	Paint, Enamel - Green -
	98-3384	1	Silkscreen, Caution				Non Metallic
	98-1003	1	Silkscreen, Water Drain				13 Oz. Pressurized Can
	98-5219	1	Silkscreen, Panel Front -				Sealant, Thread (6 ml)
			Vertical				
	98-5220	1	Silkscreen, Panel Rear -				
			Vertical				

## Numerical Index

Part No.	Page						
93-0065	48	114-0023	89	130-4271	10	145-0467	13
98-0961	100	115-0025	10	133-0201	12	145-0467	15
98-0983	100	115-0025	10	133-0202	12	145-0467	17
98-1003	100	115-0025	11	133-0203	12	145-0467	21
98-1638	100	115-0025	20	133-0204	12	145-0467	23
98-1875	100	115-0025	21	140-0261	1	145-0467	25
98-2184	100	123-0910	7	140-0379	1	145-0467	27
98-2235	100	123-1044	7	140-0649	59	145-0494	13
98-2263	75	130-0351	33	140-1083	1	145-0494	15
98-2304	100	130-0352	33	140-1089	1	145-0494	17
98-3232	100	130-0355	33	140-1583	1	145-0494	21
98-3384	100	130-0449	33	140-1588	59	145-0494	23
98-5219	100	130-0449	35	141-0372	13	145-0494	25
98-5220	100	130-0499	39	141-0372	15	145-0494	27
98-5262	100	130-0499	41	141-0372	17	148-0274	41
98-5298	100	130-0499	43	141-0563	13	148-0274	43
98-5299	100	130-0522	43	141-0563	15	148-0367	15
98-5387	100	130-0604	33	141-0563	17	148-0367	17
98-5393	100	130-0636	47	141-0869	13	148-0367	25
98-5662	100	130-0659	47	141-0869	15	148-0367	27
98-5663	100	130-0661	45	141-0869	17	148-0593	13
102-0652	5	130-0678	17	141-0911	13	148-0593	15
102-0664	5	130-0678	23	141-0911	15	148-0593	17
102-1330	5	130-0678	27	141-0911	17	148-0593	21
104-0091	7	130-0757	43	145-0120	13	148-0593	23
104-0091	13	130-0796	45	145-0120	15	148-0593	25
104-0091	15	130-0802	45	145-0120	17	148-0593	27
104-0091	17	130-0805	45	145-0120	21	148-0597	15
104-0091	21	130-0819	45	145-0120	23	148-0597	21
104-0091	23	130-0828	45	145-0120	25	148-0597	25
104-0091	25	130-1107	76	145-0120	27	148-0597	27
104-0091	27	130-1192	51	145-0120	37	148-0603	17
104-0091	37	130-1192	53	145-0120	41	148-0603	23
104-0091	41	130-1236	33	145-0120	43	148-0603	27
104-0091	43	130-1236	35	145-0158	18	148-0604	17
104-0719	5	130-1340	45	145-0158	19	148-0604	23
104-0723	5	130-2217	33	145-0158	20	148-0604	27
104-0745	5	130-2937	37	145-0163	18	148-0625	17
110-0526	39	130-3930	10	145-0163	19	148-0625	23
110-0526	41	130-4099	37	145-0163	20	148-0625	27
110-0526	43	130-4099	39	145-0164	18	148-0626	25
110-0526	47	130-4099	41	145-0165	18	148-0626	27
110-0576	39	130-4099	43	145-0165	19	148-0627	25
110-0576	41	130-4099	45	145-0165	20	148-0637	15
110-0576	43	130-4099	47	145-0166	18	148-0637	21
110-1543	39	130-4245	35	145-0166	19	148-0637	25
110-1543	41	130-4246	35	145-0182	18	148-0643	21
114-0023	85	130-4252	35	145-0421	20	148-0643	23
114-0023	85	130-4264	37	145-0422	19	148-0643	25
114-0023	87	130-4267	35	145-0422	20	148-0643	27

## Numerical Index

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
148-0673	25	150-2145	11	154-2801	18	167-1527	9
148-0691	15	150-2249	10	154-2801	19	167-1528	9
148-0691	17	150-2495	10	154-2801	20	167-1529	9
148-0774	13	150-2496	10	154-2801	21	167-1530	9
148-0774	15	150-2497	11	154-2801	23	167-1531	9
148-0774	17	150-2551	11	154-2801	25	167-1532	9
148-0774	21	150-2583	11	154-2801	27	191-0571	2
148-0774	23	151-0230	28	155-0775	61	191-0571	3
148-0774	25	151-0312	10	155-0776-01	61	191-0578	2
148-0774	27	151-0402	63	155-0789	59	191-0578	3
148-0775	13	151-0411	11	155-0898	61	191-0623	2
148-0775	15	151-0433	11	155-0899	61	191-0623	3
148-0775	17	151-0566	11	155-0923	7	191-0716	2
148-0775	21	151-0579	10	155-0978	59	191-0716	3
148-0775	23	151-0596	11	155-0988	59	191-0725	2
148-0775	25	151-0605	11	155-1015	25	191-0725	3
148-0775	27	151-0619	11	155-1107	7	191-0773	7
148-0826	17	151-0624	11	155-1420	59	191-0941	2
148-0994	25	151-0625	11	155-1430	59	191-0941	3
149-0638	21	151-0629	11	155-1512	59	191-1388	2
149-0638	23	151-0707	11	155-1593	59	191-1390	2
149-0638	25	151-0710	11	155-1634	59	191-1407	7
149-0736	27	152-0036	28	155-1644	59	191-1410	3
149-0736	21	152-0120	28	155-1984	11	191-1411	3
149-0736	23	152-0155	18	155-1993	7	191-1872	3
149-0736	25	152-0155	20	155-2340	61	191-1981	3
149-0736	27	152-0158	28	155-2341	61	191-1983-01	3
149-1052	13	152-0329	11	155-2342	61	191-2032	3
149-1052	15	152-0341	11	159-0294	29	191-2034	3
149-1052	17	154-1296	37	159-0489	31	191-2035	3
149-2304	5	154-1296	41	159-0490	31	191-2058	33
150-0096	18	154-1296	43	159-0512	31	191-2061	3
150-0096	19	154-1297	37	159-0680	29	191-2117	7
150-0096	20	154-1297	41	159-0705	29	193-0104	5
150-0214	11	154-1297	43	159-0746	29	193-0106	65
150-0638	10	154-1298	37	159-0751	31	193-0106	69
150-0638	11	154-1298	41	159-0859	29	193-0107	65
150-0638	21	154-1298	43	159-0860	29	193-0107	69
150-0717	85	154-1299	37	159-0861	29	193-0108	5
150-0717	87	154-1299	41	159-0875	29	193-0187	65
150-0717	89	154-1299	43	159-0876	29	193-0187	69
150-0723	87	154-1335	37	159-1025	31	193-0188	5
150-0723	89	154-1335	41	160-0558	9	193-0232	83
150-0723	91	154-1335	43	160-1045	9	193-0233	83
150-0939	11	154-2345	37	166-0268	9	193-0234	83
150-1356	87	154-2345	41	166-0278	9	193-0235	83
150-1356	89	154-2345	43	166-0286	9	193-0236	83
150-1456	87	154-2801	13	166-0727	7	193-0243	65
150-1456	89	154-2801	15	167-1525	9	193-0243	69
150-1923	11	154-2801	17	167-1526	9	193-0244	5

## Numerical Index

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
193-0245	69	201-2689	89	220-2353	87	301-3156	95
193-0248	65	204-0083	85	220-2353	89	301-3158	71
193-0248	69	205-0089	85	220-2459	87	301-3158	73
193-0249	5	205-0089	87	220-2462	89	301-3191	95
193-0292	48	205-0089	89	220-2621	87	301-3192	97
193-0305	83	211-0185	85	220-2624	89	301-3195	95
193-0318	5	211-0185	87	231-0148	5	301-3196	95
193-0329	48	211-0185	89	231-0157	11	301-3197	97
193-0351	63	212-0413	85	232-2078	85	301-3244	71
193-0352	63	212-1105	85	232-2078	87	301-3244	73
193-0353	5	212-1225	85	232-2078	89	301-3253	65
193-0388	63	214-0046	85	232-2102	87	301-3253	69
193-0392	5	220-1451	85	232-2102	89	301-3253	83
193-0435	63	220-1451	85	232-2218	93	301-3283	79
201-1640	85	220-1451	87	234-0361	77	301-3284	79
201-1640	85	220-1454	85	234-0368	85	301-3292	79
201-1643	85	220-1454	85	234-0368	87	301-3476	81
201-1643	85	220-1454	85	234-0368	89	301-3477	81
201-1643	85	220-1454	85	234-0369	85	301-4009	83
201-1643	85	220-1454	87	234-0369	87	301-6053	65
201-1643	85	220-1454	89	234-0369	89	301-6053	69
201-1643	85	220-1456	85	234-0370	77	301-6257	63
201-1645	85	220-1456	85	300-0679	65	301-6987	81
201-1645	85	220-1456	89	300-0679	69	301-8065	67
201-1645	85	220-1528	87	300-0681	65	301-8851	63
201-1645	85	220-1528	89	300-0681	69	301-9054-01	67
201-1739	87	220-1552	85	300-0714	65	301-9054-02	67
201-1739	89	220-1552	85	300-0714	69	301-9054-03	67
201-1845	87	220-1552	87	300-0730	65	301-9055-01	63
201-1845	89	220-1552	87	300-0730	69	301-9055-02	63
201-2666	87	220-1554	85	300-0733	65	301-9315	73
201-2666	87	220-1554	85	300-0733	69	301-9668	99
201-2668	87	220-1554	89	300-2807	63	301-9669	99
201-2669	87	220-1554	89	300-2809	63	301-9682	99
201-2669	87	220-1599	87	300-2811	63	301-9892	99
201-2669	87	220-1602	89	300-2855	63	302-0061	83
201-2669	87	220-1774	87	300-2862	63	302-0078	75
201-2669	89	220-1774	89	300-2880	67	302-0079	75
201-2669	89	220-1783	87	300-2880	73	302-0106	75
201-2671	89	220-1786	87	300-2897	63	302-0213	71
201-2671	89	220-1786	89	300-2901	63	302-0213	73
201-2671	89	220-1788	89	300-2902	63	302-0221	71
201-2671	89	220-1845	87	300-2905	63	302-0221	73
201-2684	87	220-1845	87	300-2971	71	302-0234	71
201-2687	87	220-1847	89	300-2971	71	302-0234	73
201-2687	87	220-1847	89	300-2971	71	302-0235	75
201-2687	87	220-1994	87	301-1886	76	302-0236	75
201-2687	89	220-1997	87	301-3154	77	302-0253	75
201-2689	89	220-1997	89	301-3155	77	302-0256	71
201-2689	89	220-1999	89	301-3156	77	302-0256	73

## Numerical Index

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
302-0410	71	302-1082	81	304-0015	18	307-1164	51
302-0410	73	302-1083	81	304-0045	18	307-1166	5
302-0411	71	302-1113	81	304-0292	93	307-1323	20
302-0411	73	302-1114	81	304-0427	93	307-1327	20
302-0412	71	302-1147	67	304-1143	79	307-1330	20
302-0412	73	302-1148	67	305-0481	85	307-1356	20
302-0413	71	302-1362	65	305-0481	87	307-1460	51
302-0413	73	302-1362	69	305-0481	89	307-1987	67
302-0421	71	302-1365	75	305-0482	91	308-0002	65
302-0421	73	302-1641	63	305-0483	91	308-0002	69
302-0422	71	302-1683	67	305-0489	85	308-0005	15
302-0422	73	302-1684	67	305-0489	91	308-0005	17
302-0466	71	302-1685	67	305-0489	91	308-0088	83
302-0466	73	302-1720	67	305-0491	87	308-0138	65
302-0469	71	302-1721-01	81	305-0491	89	308-0138	69
302-0469	73	302-1721-02	81	305-0491	91	308-0150	15
302-0605	71	302-1721-03	81	306-0155	15	308-0150	17
302-0605	73	302-1721-04	81	306-0155	17	308-0152	79
302-0607	67	302-1721-05	81	307-0259	18	308-0155	83
302-0612	71	302-1721-06	81	307-0312	15	308-0284	67
302-0612	73	302-1721-07	81	307-0312	17	308-0284	71
302-0718	71	302-1721-08	81	307-0312	21	308-0284	73
302-0718	73	302-1721-09	81	307-0312	23	308-0297	83
302-0719	71	302-1721-10	81	307-0312	25	308-0327	65
302-0719	73	302-1721-11	81	307-0312	27	308-0327	69
302-0720	71	302-1721-12	81	307-0565	29	308-0784	63
302-0720	73	302-1721-13	81	307-0833	39	308-0785	63
302-0721	71	302-1721-14	81	307-0833	41	308-0853	63
302-0721	73	302-1721-15	81	307-0833	43	308-0882	67
302-0722	71	302-1721-16	81	307-0833	45	308-0892	63
302-0722	73	302-1721-17	81	307-0833	47	309-0064	5
302-0723	71	302-1722	81	307-0867	31	309-0106	49
302-0723	73	302-1723	63	307-1031	5	309-0106	53
302-0724	71	302-1724	67	307-1058	65	309-0128	76
302-0724	73	302-1725	67	307-1058	65	309-0131	18
302-0729	75	302-1726	67	307-1058	65	309-0132	18
302-0749	65	302-1727	67	307-1058	67	309-0133	18
302-0749	69	302-1790	63	307-1058	69	309-0155	18
302-0764	75	302-1868-03	75	307-1058	69	309-0178	7
302-0779	71	302-1868-04	75	307-1058	69	309-0178	7
302-0779	73	302-1868-05	75	307-1061	65	309-0179	7
302-0809	71	302-1873-01	63	307-1061	69	309-0241	43
302-0809	73	303-0032	67	307-1061	71	309-0241	45
302-0810	71	303-0032	71	307-1061	73	309-0241	47
302-0810	73	303-0032	73	307-1093	19	309-0256	49
302-0811	71	303-0076	71	307-1157	65	309-0256	53
302-0811	73	303-0076	73	307-1157	69	309-0269	5
302-0864	75	303-0170	71	307-1157	71	309-0304	51
302-0865	75	303-0261	67	307-1157	73	309-0307	51
302-0885	63	303-0261	73	307-1157	79	309-0312	7

## Numerical Index

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
312-0201	2	321-0231	63	332-0050	43	332-1279	93
314-0006	9	321-0270	63	332-0050	92	332-1280	65
315-0339	91	322-0004	63	332-0051	65	332-1280	65
315-0341	91	322-0004	65	332-0051	69	332-1280	69
315-0343	91	322-0004	69	332-0051	71	332-1280	69
315-0384	71	322-0107	65	332-0051	73	332-1280	71
315-0431	71	322-0107	69	332-0051	83	332-1280	73
319-0447	67	322-0108	65	332-0052	63	332-1281	5
320-0202	71	322-0108	69	332-0052	67	332-1292	5
320-0307	71	322-0109	65	332-0149	51	332-1415	91
320-0307	73	322-0109	69	332-0529	93	332-1473	55
320-0344	97	322-0110	65	332-0537	65	332-1559	65
320-0346	97	322-0110	69	332-0537	69	332-1559	69
320-0346	97	322-0111	65	332-0607	71	332-2723	67
320-0359	97	322-0111	69	332-0607	73	333-0012	49
320-0379	97	322-0128	65	332-0609	81	333-0012	53
320-0379	97	322-0128	69	332-0610	81	333-0013	49
320-0384	97	322-0130	71	332-0699	65	333-0013	53
320-0384	97	322-0130	73	332-0699	69	333-0056	49
320-0411	97	322-0131	71	332-0795	65	333-0056	53
320-0412	97	322-0131	73	332-0795	69	333-0057	49
320-0413	97	322-0136	65	332-0795	71	333-0057	53
320-0414	97	322-0136	69	332-0795	73	333-0059	94
320-0415	97	322-0149	65	332-0795	83	333-0093	51
320-0416	97	322-0149	69	332-0807	51	333-0093	53
320-0431	73	322-0178	71	332-0941	93	333-0118	49
320-0455	71	322-0178	73	332-1005	65	333-0142	51
320-1121	67	322-0283	65	332-1005	69	333-0151	76
320-1458-13	99	322-0283	69	332-1043	65	333-0162	51
320-1458-23	99	322-0358-01	63	332-1043	69	333-0162	53
320-1458-24	99	322-0359-01	63	332-1043	91	333-0168	51
320-1458-24	99	322-0360-01	63	332-1239	65	333-0171	51
320-1458-25	99	322-0361	63	332-1239	69	333-0171	53
320-1458-27	99	322-0363	67	332-1240	65	333-0173	51
320-1458-27	99	322-0369-01	63	332-1240	69	333-0177	51
320-1458-28	99	323-0764	65	332-1241	83	333-0177	53
320-1458-29	99	323-0764	69	332-1242	71	333-0178	51
320-1458-31	99	323-0764	79	332-1242	73	333-0192	94
320-1458-41	99	323-0765	65	332-1248	71	333-0194-01	65
320-1459-08	99	323-0765	69	332-1248	73	333-0194-01	69
320-1466-25	99	323-0765	71	332-1265	91	333-0224	51
320-1512-08	99	323-0765	73	332-1266	91	335-0146	94
320-1512-10	99	323-0804	67	332-1269	65	335-0147	94
320-1518-08	99	323-0957	49	332-1269	69	335-0161	76
320-1555-07	99	323-0957	51	332-1271	65	336-3064	7
320-1555-08	99	323-1280	79	332-1271	65	337-0049	67
320-1555-09	99	331-0027	51	332-1271	69	337-0049	71
320-1555-11	99	331-0101	25	332-1271	69	337-0049	73
320-1557-51	99	332-0014	49	332-1276	65	337-0090	55
321-0094	63	332-0014	51	332-1276	69	338-0533	7

## Numerical Index

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
338-0628	7	403-0902	55	502-0002	29	503-0189	47
338-1765-01	11	405-1054	33	502-0002	31	503-0189	53
338-1817	63	405-1054	35	502-0003	29	503-0200	41
338-1818	67	405-1777	57	502-0020	31	503-0245	12
338-1835	63	405-1780	57	502-0029-04	48	503-0311	37
338-1836	63	405-1808	57	502-0051	83	503-0311	53
338-1853	67	405-1809	57	502-0054	51	503-0365	12
338-1962	7	405-1811	33	502-0082	29	503-0365	33
338-2277	63	405-1811	35	502-0082	31	503-0365	35
338-2278	67	405-1812	57	502-0103	17	503-0365	37
338-2675	7	405-1814	57	502-0103	23	503-0365	39
350-0556	71	405-1835	57	502-0103	27	503-0365	41
350-0556	73	405-1840	79	502-0193	51	503-0365	43
354-0025	93	405-2084	57	502-0354	13	503-0365	45
356-0070	65	405-2160	79	502-0354	15	503-0365	47
356-0070	69	405-4659	48	502-0354	17	503-0386	27
356-0072	65	406-0089	57	502-0444	83	503-0398	17
356-0072	69	406-0105	12	502-0445	83	503-0398	23
356-0090	82	406-0105	57	502-0583	83	503-0437	47
356-0102	82	406-0157	57	502-0613	51	503-0461	39
356-0104	82	406-0249	57	502-0801	48	503-0490	33
357-0030	48	406-0332	67	502-0942	51	503-0490	35
358-0029	91	406-0332	71	502-0943	23	503-0490	37
358-0031	91	406-0332	73	502-0943	27	503-0490	45
358-0031	91	406-0333	67	502-0971	23	503-0490	47
358-0035	91	406-0333	71	502-0971	25	503-0491	33
358-0043	92	406-0333	73	502-1030	17	503-0491	35
358-0044	92	406-0334	67	502-1030	17	503-0491	37
358-0096	92	406-0334	71	502-1031	39	503-0491	45
358-0097	92	406-0334	73	502-1031	41	503-0491	47
363-0048	91	406-0469	33	502-1031	43	503-0517	37
363-0054	92	406-0471	33	502-1031	47	503-0517	53
363-0055	92	406-0565	57	502-1031	53	503-0542	15
364-0012	91	416-0021	5	503-0032	27	503-0542	17
364-0012	91	416-0096	7	503-0032	39	503-0586	39
364-0014	91	416-0612	55	503-0032	41	503-0611	85
402-0010	55	416-0613	5	503-0084	41	503-0611	87
402-0011	55	416-0687	55	503-0087	27	503-0611	89
402-0012	55	416-0972	55	503-0113	51	503-0614	7
402-0030	55	501-0009	29	503-0131	5	503-0685	13
402-0078	71	501-0009	31	503-0183	17	503-0685	15
402-0078	73	501-0010	29	503-0183	17	503-0685	17
402-0078	81	501-0010	31	503-0183	23	503-0685	48
402-0337	55	501-0134	13	503-0183	27	503-0710	51
402-0338	55	501-0134	15	503-0183	41	503-0826	39
402-0354	81	501-0134	17	503-0183	43	503-0826	41
402-0527	67	501-0199	51	503-0183	51	503-0826	41
403-0633	55	502-0002	13	503-0189	27	503-0826	43
403-0894	57	502-0002	15	503-0189	37	503-0832	17
403-0895	57	502-0002	17	503-0189	39	503-0833	23

## Numerical Index

Part No.	Page						
503-0999	15	505-0003	27	505-0039	17	505-0101	5
503-0999	17	505-0004	23	505-0039	23	505-0101	17
503-1077	83	505-0004	25	505-0040	43	505-0101	17
503-1103	17	505-0004	27	505-0040	47	505-0101	23
503-1103	23	505-0004	27	505-0041	27	505-0101	37
503-1137	17	505-0004	51	505-0044	61	505-0101	47
503-1142	15	505-0007	5	505-0050	39	505-0101	51
503-1163	27	505-0007	15	505-0050	41	505-0102	15
503-1194	37	505-0007	17	505-0051	43	505-0102	15
503-1194	37	505-0007	25	505-0056	41	505-0102	21
503-1194	43	505-0007	27	505-0056	43	505-0102	25
503-1196	41	505-0007	51	505-0056	47	505-0102	25
503-1196	43	505-0007	51	505-0057	5	505-0102	27
503-1201	27	505-0010	27	505-0057	29	505-0102	39
503-1418	48	505-0010	39	505-0057	31	505-0102	41
503-1418	48	505-0010	41	505-0057	37	505-0102	43
503-1691	17	505-0011	7	505-0059	5	505-0102	45
504-0003	7	505-0017	17	505-0059	5	505-0103	61
504-0003	37	505-0017	23	505-0060	17	505-0106	53
504-0003	39	505-0017	27	505-0060	23	505-0108	37
504-0003	41	505-0017	27	505-0060	27	505-0108	41
504-0003	43	505-0018	37	505-0060	51	505-0108	43
504-0003	45	505-0018	39	505-0071	7	505-0108	47
504-0003	51	505-0018	39	505-0086	27	505-0111	61
504-0003	53	505-0018	41	505-0098	5	505-0111	61
504-0004	31	505-0018	43	505-0098	15	505-0119	17
504-0005	17	505-0019	37	505-0098	17	505-0119	27
504-0005	23	505-0019	47	505-0098	25	505-0119	27
504-0005	27	505-0020	25	505-0098	27	505-0119	27
504-0005	45	505-0020	39	505-0098	45	505-0125	23
504-0007	15	505-0020	41	505-0098	51	505-0125	27
504-0007	17	505-0021	15	505-0099	17	505-0129	25
504-0007	31	505-0021	21	505-0099	23	505-0129	27
504-0013	31	505-0021	23	505-0099	25	505-0129	45
504-0019	39	505-0021	25	505-0099	27	505-0129	47
504-0019	41	505-0021	43	505-0099	41	505-0130	45
504-0019	45	505-0021	45	505-0099	51	505-0130	47
504-0019	47	505-0021	47	505-0099	51	505-0132	15
504-0028	17	505-0021	53	505-0100	15	505-0132	21
504-0028	23	505-0022	17	505-0100	21	505-0132	25
504-0028	27	505-0022	27	505-0100	23	505-0132	25
504-0028	33	505-0028	23	505-0100	25	505-0132	39
504-0028	35	505-0028	47	505-0100	27	505-0132	41
504-0028	45	505-0029	25	505-0100	39	505-0135	5
504-0028	47	505-0032	43	505-0100	41	505-0135	17
504-0028	47	505-0038	7	505-0100	43	505-0135	23
504-0030	5	505-0038	41	505-0100	45	505-0135	27
504-0062	47	505-0038	51	505-0100	45	505-0135	51
504-0083	27	505-0039	5	505-0100	47	505-0140	45
505-0002	47	505-0039	17	505-0100	47	505-0140	47

## Numerical Index

Part No.	Page						
505-0175	37	508-0015	5	520-0311	25	526-0048	91
505-0175	41	508-0051	67	520-0311	27	526-0048	99
505-0175	43	508-0093	92	520-0404	7	526-0049	75
505-0183	47	508-0115	79	520-0446	49	526-0049	85
505-0184	45	508-0187	92	520-0446	53	526-0052	79
505-0185	17	508-0203	77	520-0515	10	526-0054	79
505-0190	43	508-0203	95	520-0564	37	526-0062	65
505-0190	53	509-0125	85	520-0564	41	526-0062	69
505-0203	59	509-0125	87	520-0564	43	526-0062	83
505-0203	61	509-0125	89	520-0663	55	526-0066	37
505-0217	12	510-0101	85	520-0672	49	526-0066	41
505-0258	47	510-0101	87	520-0672	53	526-0066	43
505-0271	37	510-0101	89	520-0721	85	526-0100	2
505-0271	41	511-0074	2	520-0721	87	526-0100	3
505-0271	43	511-0074	3	520-0721	89	526-0108	85
505-0274	31	511-0075	33	520-0723	85	526-0108	99
505-0287	23	511-0075	35	520-0723	87	526-0113	59
505-0289	43	511-0077	10	520-0723	89	526-0113	76
505-0302	7	511-0078	10	525-0305	100	526-0115	10
505-0317	43	511-0164	10	526-0002	79	526-0115	55
505-0317	45	511-0174	10	526-0003	81	526-0141	55
505-0324	39	511-0175	3	526-0006	18	526-0158	94
505-0324	41	511-0179	10	526-0006	20	526-0214	7
505-0324	43	512-0051	10	526-0008	75	526-0238	85
505-0356	23	515-0093	2	526-0008	92	526-0238	87
505-0356	25	515-0093	3	526-0008	99	526-0238	89
505-0356	27	515-0145	87	526-0009	91	526-0259	85
505-0385	43	515-0145	89	526-0009	92	526-0259	87
505-0385	47	516-0059	18			526-0259	89
505-0426	45	516-0059	20	526-0015	13	526-2106	3
505-0444	45	516-0086	18	526-0018	48	526-2106	3
505-0453	59	516-0167	5	526-0018	77	718-1037	3
505-0454	59	517-0090	9	526-0018	85	718-1039	3
505-0455	51	517-0131	63	526-0018	91	718-1040	3
505-0462	45	517-0131	71	526-0018	91	800-0003	20
505-0642	43	517-0131	73	526-0018	93	800-0003	85
505-0642	45	517-0221	63	526-0022	97	800-0003	87
505-0691	45	518-0374	65	526-0022	99	800-0003	87
505-0763	51	518-0374	69	526-0028	99	800-0003	89
505-0802	48	518-0601	100	526-0029	5	800-0003	89
505-0949	47	520-0214	10	526-0029	10	800-0003	93
508-0001	71	520-0238	37	526-0030	2	800-0003	97
508-0001	73	520-0238	41	526-0030	10	800-0004	7
508-0001	81	520-0238	43	526-0030	37	800-0004	45
508-0002	91	520-0311	7	526-0030	41	800-0004	94
508-0008	25	520-0311	13	526-0030	43	800-0005	5
508-0008	25	520-0311	15	526-0035	7	800-0005	28
508-0008	49	520-0311	17	526-0048	18	800-0005	43
508-0008	53	520-0311	21	526-0048	19	800-0007	25
508-0009	79	520-0311	23	526-0048	20	800-0007	39

## Numerical Index

Part No.	Page						
800-0008	85	800-0052	11	805-0035	85	813-0097	79
800-0008	87	800-0052	37	805-0035	87	813-0098	15
800-0008	89	800-0052	41	805-0035	89	813-0098	17
800-0009	17	800-0052	43	809-0036	5	813-0098	57
800-0009	23	800-0053	13	809-0059	57	813-0098	57
800-0009	27	800-0069	5	812-0061	65	813-0098	79
800-0009	85	800-0069	17	812-0061	69	813-0098	93
800-0009	87	800-0069	23	812-0061	71	813-0100	75
800-0009	87	800-0069	27	812-0061	71	813-0100	91
800-0009	87	800-0069	37	812-0061	71	813-0100	92
800-0009	89	800-0069	39	812-0061	71	813-0102	11
800-0009	89	800-0069	41	812-0061	73	813-0102	11
800-0009	89	800-0069	43	812-0061	73	813-0105	59
800-0024	67	800-0069	45	812-0061	79	813-0105	65
800-0025	15	800-0069	47	812-0063	63	813-0105	69
800-0025	17	800-0071	5	812-0063	65	813-0110	75
800-0025	21	800-0071	17	812-0063	69	813-0110	92
800-0025	23	800-0071	23	812-0063	81	813-0118	18
800-0025	25	800-0071	27	812-0065	67	813-0118	99
800-0025	27	800-0071	29	812-0065	71	813-0307	59
800-0026	5	800-0071	55	812-0065	73	814-0079	33
800-0026	9	800-0073	5	812-0066	71	814-0079	57
800-0026	45	800-0084	2	812-0066	73	814-0200	13
800-0027	2	800-0084	3	812-0066	83	814-0200	15
800-0027	47	800-0091	55	812-0070	76	814-0200	17
800-0028	59	800-0135	61	812-0075	28	814-0200	21
800-0028	59	800-0513	85	812-0076	49	814-0200	23
800-0028	79	800-0513	87	812-0076	53	814-0200	25
800-0028	97	800-0513	89	812-0077	7	814-0200	27
800-0028	99	800-0520	55	812-0077	12	815-0026	65
800-0029	55	800-2101	3	812-0077	91	815-0026	69
800-0031	11	801-0024	33	812-0077	91	815-0026	71
800-0034	76	801-0027	37	812-0078	82	815-0026	73
800-0035	29	801-0050	10	812-0078	82	815-0026	81
800-0035	59	801-0080	55	812-0079	18	815-0026	83
800-0037	59	802-0072	37	812-0079	19	815-0030	95
800-0045	67	802-0072	41	812-0079	20	815-0104	18
800-0045	71	802-0072	43	812-0079	43	815-0104	20
800-0045	73	803-0002	18	812-0079	51	815-0134	18
800-0046	37	803-0002	19	812-0079	91	815-0134	19
800-0048	47	803-0002	20	812-0081	91	815-0134	20
800-0048	57	805-0018	85	812-0094	97	815-0181	33
800-0048	85	805-0018	87	812-0094	99	815-0181	35
800-0048	87	805-0018	89	812-0149	57	815-0203	65
800-0048	89	805-0019	85	812-0153	79	815-0203	69
800-0051	5	805-0019	87	812-0157	99	815-0203	71
800-0051	11	805-0019	89	812-0158	31	815-0203	73
800-0051	37	805-0033	85	812-0165	93	815-0203	75
800-0051	41	805-0033	87	812-0165	99	815-0203	83
800-0051	43	805-0033	89	813-0097	79	815-0203	85



## Numerical Index

Part No.	Page						
815-0392	65	850-0020	73	850-0040	25	850-0045	97
815-0392	69	850-0025	7	850-0040	27	850-0045	99
815-0392	79	850-0025	12	850-0040	28	850-0050	5
815-0504	9	850-0025	18	850-0040	29	850-0050	10
815-0544	63	850-0025	19	850-0040	31	850-0050	37
815-0544	67	850-0025	20	850-0040	39	850-0050	37
815-0544	67	850-0025	43	850-0040	41	850-0050	37
815-0544	73	850-0025	49	850-0040	43	850-0050	41
821-0004	63	850-0025	51	850-0040	43	850-0050	41
821-0004	67	850-0025	53	850-0040	45	850-0050	41
821-0005	95	850-0025	57	850-0040	51	850-0050	43
821-0009	82	850-0025	82	850-0040	53	850-0050	43
821-0010	31	850-0025	97	850-0040	79	850-0050	43
821-0010	33	850-0025	99	850-0040	85	850-0050	47
821-0010	35	850-0030	15	850-0040	85	850-0050	57
821-0010	57	850-0030	17	850-0040	85	850-0050	85
821-0010	67	850-0030	18	850-0040	87	850-0050	87
821-0010	71	850-0030	49	850-0040	87	850-0050	89
821-0010	73	850-0030	53	850-0040	87	850-0051	11
821-0010	77	850-0030	57	850-0040	89	850-0055	2
821-0010	77	850-0030	57	850-0040	89	850-0055	3
821-0010	77	850-0030	65	850-0040	89	850-0055	5
821-0010	95	850-0030	65	850-0040	91	850-0055	5
821-0010	99	850-0030	65	850-0040	91	850-0055	7
821-0014	33	850-0030	69	850-0040	93	850-0055	17
821-0014	35	850-0030	69	850-0040	93	850-0055	23
821-0014	39	850-0030	69	850-0040	97	850-0055	27
821-0014	41	850-0030	71	850-0040	99	850-0055	29
821-0014	43	850-0030	73	850-0045	2	850-0055	37
821-0014	48	850-0030	79	850-0045	9	850-0055	39
821-0014	57	850-0030	79	850-0045	10	850-0055	41
821-0014	57	850-0030	79	850-0045	11	850-0055	43
821-0014	57	850-0030	83	850-0045	15	850-0055	45
821-0014	77	850-0030	83	850-0045	17	850-0055	47
821-0014	79	850-0030	83	850-0045	21	850-0055	55
821-0014	79	850-0030	91	850-0045	23	850-0060	55
821-0014	81	850-0030	92	850-0045	25	850-0070	2
821-0014	95	850-0030	92	850-0045	27	850-0070	3
821-0015	48	850-0030	92	850-0045	33	850-0079	85
821-0016	51	850-0030	93	850-0045	37	850-0079	87
821-0016	57	850-0038	94	850-0045	45	850-0079	89
821-0017	81	850-0040	5	850-0045	47	850-2005	3
821-0018	47	850-0040	7	850-0045	55	850-2008	3
821-0018	53	850-0040	10	850-0045	55	851-0039	3
821-0018	77	850-0040	10	850-0045	59	853-0003	65
821-0029	55	850-0040	17	850-0045	67	853-0003	65
850-0010	10	850-0040	20	850-0045	71	853-0003	69
850-0020	71	850-0040	20	850-0045	73	853-0003	69
850-0020	71	850-0040	21	850-0045	79	853-0003	71
850-0020	73	850-0040	23	850-0045	81	853-0003	71

## Numerical Index

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
853-0003	71	856-0003	75	862-0001	89	870-0055	18
853-0003	71	856-0003	83	862-0001	89	870-0055	19
853-0003	71	856-0003	83	862-0001	91	870-0055	20
853-0003	73	856-0006	77	862-0001	93	870-0068	55
853-0003	73	856-0008	5	862-0003	37	870-0106	57
853-0003	73	856-0008	55	862-0003	41	870-0113	48
853-0003	79	856-0008	67	862-0003	43	870-0113	57
853-0003	81	856-0010	85	862-0004	2	870-0114	33
853-0003	83	856-0010	87	862-0004	3	870-0114	35
853-0005	18	856-0010	89	862-0004	55	870-0131	11
853-0005	19	856-0012	5	862-0007	61	870-0131	11
853-0005	20	856-0013	55	862-0011	85	870-0131	63
853-0005	81	860-0005	71	862-0011	87	870-0131	67
853-0005	91	860-0005	73	862-0011	89	870-0183	63
853-0005	91	860-0006	65	862-0014	81	870-0183	76
853-0005	91	860-0006	69	862-0015	23	870-0188	59
853-0005	91	860-0006	76	862-0015	27	870-0196	5
853-0008	65	860-0006	79	862-0015	45	870-0203	7
853-0008	69	860-0006	81	862-0015	47	870-0212	11
853-0008	81	860-0008	18	862-0015	55	870-0212	48
853-0008	83	860-0008	19	862-0015	79	870-0212	48
853-0008	85	860-0008	20	862-0015	97	870-0212	77
853-0008	91	860-0008	43	862-0015	99	870-0221	33
853-0013	85	860-0008	57	862-0018	55	870-0232	57
853-0013	87	860-0008	81	865-0007	55	870-0250	87
853-0013	87	860-0008	91	870-0048	11	870-0250	89
853-0013	89	860-0008	91	870-0048	59	870-0250	91
853-0013	89	860-2006	3	870-0053	15	870-0257	51
853-0013	91	860-2008	3	870-0053	17	870-0257	53
854-0006	76	861-0007	82	870-0053	18	870-0257	59
854-0010	71	862-0001	5	870-0053	18	870-0257	76
854-0010	73	862-0001	17	870-0053	19	870-0281	55
854-0010	75	862-0001	20	870-0053	20	870-2056	3
854-0010	75	862-0001	23	870-0053	49	870-2161	3
854-0020	7	862-0001	25	870-0053	53	871-0007	91
854-0020	13	862-0001	27	870-0053	57	871-0010	65
854-0020	15	862-0001	29	870-0053	65	871-0010	69
854-0020	17	862-0001	39	870-0053	65	871-0010	71
854-0020	21	862-0001	41	870-0053	69	871-0010	73
854-0020	23	862-0001	43	870-0053	69	871-0010	75
854-0020	25	862-0001	43	870-0053	71	871-0010	83
854-0020	27	862-0001	45	870-0053	73	871-0010	85
856-0002	18	862-0001	51	870-0053	75	871-0010	91
856-0002	19	862-0001	53	870-0053	83	871-0018	91
856-0002	20	862-0001	85	870-0053	83	871-0018	91
856-0003	65	862-0001	85	870-0053	92	895-0098	12
856-0003	65	862-0001	87	870-0053	92	895-0157	59
856-0003	69	862-0001	87	870-0053	92	895-0295-01	51
856-0003	69	862-0001	87	870-0053	93	895-0296-01	37
856-0003	75	862-0001	89	870-0054	59	895-0296-01	45